SEQUENCE LISTING

<110> Young, Paul
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      Ebner, Reinhard
      Carter, Kenneth

<120> Cancer Gene Determination and Therapeutic Screening Using
Signature Gene Sets

<130>   689290-64

<150>   U.S. 60/209,473
<151>   2000-06-05

<150>   U.S. 60/209,531
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<150>   U.S. 60/236,891
<151>   2000-09-29

<150>   U.S. 60/236,842
<151>   2000-09-29

<150>   U.S. 60/244,867
<151>   2000-11-01

<150>   U.S. 60/245,084
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<160>   1067

<170>   PatentIn version 3.0

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tactcttact tgtttacatg agttaactag aaaatggcta caactgctaa atgatgctta     180
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gatttaaaaa ttttttttca tgaacaaacc atcagtagtt attaaggagc ccaagaaata     180
ggagatgtga aagcaggatt tctttgtgtt cctttgaat gttgttattt tgagtattat      240
cattatcagg tagaggaaga aaggtaggct gggaagtagg tccttatgat atcttgacta     300
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caagaatgac ataaaccaga ggtaaacacc aaggagcttt acatttggaa ccngaaaata     420
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tcatattgtt ttcttacttt ctagacataa caagcacctt gccatcacac tgaaaagatc     240
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ggaagaatca ttgaatttga gtactgaagt tgaaaactag ccatatttgg ttataaattc     360
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aatttagaag tcnaaatacc ttcaattttt tccctccnta aaatngttaa tttgccacac     480
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cctcttaata ctttggtttt caatacagtc agtggtatag caaagactac acatacccaa   180
cttatattta agttgcaagc acatgctgta taagctactt tttttaaaca gtccccttgc   240
aaactctacc ccccttaaca tcacaatagt aaacaattta gtgcatcaat cgtttaaaaa   300
atctacagct aaacagacct aactctttca aatttatcta taacattcct ttatctgtag   360
catacatttt aactgggcta acagattata aaaactagaa ttaaattata tactagaaac   420
ccagagcatt ccacatttga caatgaccaa aagccaaaaa atataaaata aaaataaaac   480
aaaccaaaaa taatggggcg tttccctttt aaaaaataaa ttttagctgc ntctcggnaa   540
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caggcagtga gcctagcaac catacatcga aggtgtcgcc agcctcagtg ccggtggncg   180
tctgcaccag gaatagctaa agccgacgac atctagccac ctcgagcgcc agggaagacg   240
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tttccgggga cccaaagtgg gtggccttcg tcttgccccc gcagtggcag cacacggtcc   360
acaggtactt gagcgtccgc cagagcaaga tgatgaagag gccccgaaga aagtcaccat   420
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tagaggacgt ctccttctgt tgattcctac agccgagaca agatgtgatc acaggagact   180
ccaaaatctc aaactgggct tgagtaacac cctagataaa catcaggaac cccactgagg   240
ctgaagtact gaaactgtgg cccatgtgaa aaagaggtgc aagtgccaaa gattcatgca   300
gagcctgctg gaacagaggg tggtggcggc gggttagtcc acacttacac accagcaggt   360
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4

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<212>   DNA
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ggcatcagaa aatactagaa gattttttta gttaaattag ttagaacatt tatgaatgaa   180
tataataaat attttttcag aataaaatat ggaccctttg tgttactaa tagataaagc   240
cagatagtaa ttttttgttt ttaaggccac aaaatatggc ctttgttaaa gaacactaaa   300
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gctgtggtat tttttttcctc tttttatctt cataaattgg cctcttcttt ggcaaagagt   360
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accatgtgcc cacactccag taggacacag tcgatgacgg catccatgca gatgcgacac      180
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<212>  DNA
<213>  Homo sapiens

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ttttaaactg tcatatttcc tgttgagcac tttaactggc acattcttat agttataaat      240
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tccaatacta ggggatacat atatatagtt atatatatag ttatatatat ataattatat      360
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tttgtttttt cttctttaaa tattattttg ctttattgtt gtaatgttat ttttgtaata      480
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<213>  Homo sapiens

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<213>  Homo sapiens

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agacagacaa cttcagtagt agccatctcc ctacattttt agatcactga aaaaaatgga     240
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<213>  Homo sapiens

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ttctccctgg ggtagatctt ctcagggcga taaagaaaac gtcttcccaa aaaacccctt     180
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<212> DNA
<213> Homo sapiens

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aaacaatgat tattaaagtg ctagttaagt cttattttta aagagaccct atcttgtcca   180
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<220>
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<223> n=a,t,g or c

<400> 22
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catgtaggac cttcacaact tcatgcactc agaaacatgc atgaagagga ggagaggacg   180
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cacacgagtc tcttctgact gcattgtctt tggcattcca ctgccatcca tgtactgtgt   420
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<211> 272
<212> DNA

8

<213> Homo sapiens

<400> 23

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taaaatttta atacagtatt ctgaatacaa gtagaatacc actagataag aattgtattt       180
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<212> DNA
<213> Homo sapiens

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aacacacttg tttataaata catatataca cacacacata tacatatcca cacccaactt       180
ttttttttcc caaaattcaa gtcaacaatt tagtggcaga gagatgctat aaaaacatta       240
tttttagatg ccacacaagt catgagaacc attaatttta tcatacaact gaagtacagc       300
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<210> 25
<211> 393
<212> DNA
<213> Homo sapiens

<400> 25

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atcatacagt ttccataaat ggtcttattt tccttttctg gttgaaattt aacccaaaga       180
actttaaggt ctaatgtgat gcagtattta catacaaaac tcttaattca tcctgcaaaa       240
tggccaatat gagcagataa ataggaaagc tatgcatcta ataaagcaca gggccagtgc       300
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<210> 26
<211> 362
<212> DNA
<213> Homo sapiens

<400> 26

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ctgcaccttg ctgttgtact tctgaaatca gacgtgtgtg aacgatcatt tctgacttaa       240
ccgtgagatg ctcacgagta cccttcctgt tgttttgtta gcattgaaat cgagactatt       300
tatttggaat atatacaaca gtgttttttcc actgtatttc atttgcaaaa gttgagaact       360
gc                                                                       362
```

9

<210> 27
<211> 411
<212> DNA
<213> Homo sapiens

<400> 27
attaatatga acatatgaac ctttattaag tggctcacat ttcagtataa atcacactaa   60
aaagatattt aaaagctatt tacactacag tgctgacaca tttaaaatga aaaaaaagga   120
tataaataag ctctatggaa aagctttaaa ttgttgaaaa agaattctgg ctcatattac   180
aaaatatata tatatattta tatatatata tatatgtcaa tgtcagctct attctaaaac   240
ctaaaattcc aacgtaaatg attttttttt aaagactcct ttatgtttaa acctgcaatg   300
tttacagtgc atctggccct aagtgcttaa tacttcacag ttatggacag gcactgagga   360
atgttacaaa gctacataaa ctatgttttg taacagacat aggagcaagt c   411

<210> 28
<211> 417
<212> DNA
<213> Homo sapiens

<400> 28
caggaggaaa aaaattttaa taacatatgt ttgcacagga gtcccacaaa atatgagact   60
ccgagaagag tcagatgatg gacactcatg caccaccgtg agctatcgaa agaatgtggg   120
cttagggctt ctgcatggag gtggccacgg aagtgtgaaa gtgaaggcaa gaagtgtgtc   180
ctgaataaag cttggctggt tttcagacaa aaggtcttct gggtaataaa tgttgtctgg   240
agcagccctc aggagaagag gtaagagcct gtatgggatg gtgtcgctgc caacatcctt   300
ccctgtgatc ccacttactc ttccctggct gatgagatac ttggggttgt gattcatgat   360
gattgaattt ccttttgagg atttgtcttt gggcagatga aggaggctca gagaaaa   417

<210> 29
<211> 268
<212> DNA
<213> Homo sapiens

<400> 29
aaaagaaaaa tgttaagact ttattcaaga tgtgtatcag gcattataac aaaacagcag   60
aacttcaacc tttggaatac tgtaatttta catccctttg atgcacagtc cagtatacta   120
ttttattaca gatcattcta tagggactac agacatgaac tagaggaaat gtgcacagtc   180
aaaatccaga atatcagctc tgggagtgta cactgttaga ggatgaagca catcctttgc   240
catttcaaat actgtgccag gtggagga   268

<210> 30
<211> 241
<212> DNA
<213> Homo sapiens

<400> 30
catgggaaaa cttttcttca ttctcaacat gcttaagcta tttttacaaa tcagttaaac   60
tatgtctaca caaagcttag aagcacttta tttgggagca atcagtattt ttgtcaaaac   120
ttttggacag gtctttattt gtgttttgga aggttcaaca cgaattgtgc aaaatctctg   180
gatatattag tttagcgata tggttgttga agaaaataat atgttttaag cattcacaac   240
g   241

10

```
<210>   31
<211>   361
<212>   DNA
<213>   Homo sapiens

<400>   31
ctcccaaaat aggaaatttt gtattcctat agtcaaaaca ataaacaatt tttgaaatta      60
aaaaagttga gaatcttgaa attcattttt ttcagtagaa taaaacaata agcagcatga     120
aaacgtaaag tgctacataa aagccccaca ttacataaat tttgaaaagt ttattggctt     180
aaacagttac aggtgaaaca gattacgtat tttttttcaa gcatgctatt ttaattacct     240
tgatatctca tcatgtgcta tgttggtcaa ataaaatgtc atgagttatc tagatctgag     300
gattaaagag gagtcctcag cctttacttg ccagaatata catccagttt tagctgtatg     360
c                                                                     361


<210>   32
<211>   363
<212>   DNA
<213>   Homo sapiens

<400>   32
tttttaattg caactggact tttattgtgc agttacaaca acaaatgttt tcagaaaaat      60
atttggaaaa aatataccac ttcatagcta agtcttacag agaagaggat ttgctaataa     120
aacttaagtt ttgaaaatta agatgcaggt agtgcttctg aactaatgcc cacagctcca     180
aggaagacat gtcctattta gttattcaaa tacaagttga gggcattgtg attaagcaaa     240
caatatattt gttagaactt tgtttttaaa ttactgttcc ttgacattac ttataaagag     300
tctctaactt tcgatttcta aaactatgta atacaaaagt atagtttccc catttgataa     360
aag                                                                   363


<210>   33
<211>   320
<212>   DNA
<213>   Homo sapiens

<400>   33
atgttgtgaa aaggaatctg taaaagtcag ttttatcaca aattgtaaat attattgaaa      60
ttgattgcaa atttagatca catacaaatg agagtctgac attcaactgt tttcctatat     120
tccaaagtaa acaattcctt tcaacactca agacttaaac aggtattctt agagggttat     180
atgaattgct atcagaagct gttggctaac aagccagtaa tttggttctt tcaccagaac     240
acagttccag ataagcatct ttgcactatt tctcaagtat gaatccccat gtggggggaa     300
aacggatata ctttcaatag                                                 320


<210>   34
<211>   299
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c
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11

<400> 34
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aatagttcca ttcattaagt catttcttct tgctctgctt ggtaaaaggt gaaaacatgg      60
catcaaaaca cagcccagag aaagtcaatt cctgtatttc taagacagta ggatccaggc     120
ttatttggaa gataaaatat ctctggaaga acagatagtg ttaatggatt gantcatttt     180
cctcaaaaag atataacccc cagaacctca gaacgtgacc ttatttggaa atagagtcat     240
aacatatgta attagttaaa attagtccat attggagtag ggtggacact aatccagca      299
```

<210> 35
<211> 515
<212> DNA
<213> Homo sapiens

<400> 35
```
tttttgcata atgagcgcat tttattaaat agatagttaa cgcactgctt cttactcatt      60
ccaagttgct gtaggtgctg cccgcattaa cagcagggac aaaagcttcc tatgcgcgtt     120
tcagcaggaa tactctctcc actccaggta cttctttgtt ttggattttt ttggcatgat     180
ttccttccca tgtaaagaaa gccaacttct tcaagacaca ggtcattcag ctttagtggt     240
ggcctccagg ttctccttgg gccgtgcaga aggccaggtc ccgcacagtg aggccctcct     300
ttgtcctcca ctgaaagctt ttcactgttc ggtctgcaaa gaaagaggtt cgcctgcccc     360
tgctccactc gccagggtgg aagtggtgga gggctgggaa agggctttct tcacagggca     420
gtgctctcgg tatcattgtc tatatccagc aggatgcggc caggcacgtc tttgctggct     480
gagtctgagt gcatttcagg aaagatgctg cgatg                                515
```

<210> 36
<211> 350
<212> DNA
<213> Homo sapiens

<400> 36
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ttttgaactt gctcagaatt ttattgggat taacagggtc cacgggggaga ggcgagcctt     60
ctgggggacg gggacagaat accgcaaaga ataccgcaat gggaacggcc ttgcatagac     120
accgaggcgg gctagcggcg cggcgggaag aggagaggga tggagaaaga acttgggaga     180
ggaaggtggc agcagcgcct ccatgggcac tgcgcggctg tgacgaaggc cacagcggcc     240
ctccccgctt cggggtacag ggtgtccact ccacacagca cagggagagg ggctggggca     300
caactgactg ggagaagtgg gtagaggggc cctgaccaag gcatcacaat                 350
```

<210> 37
<211> 344
<212> DNA
<213> Homo sapiens

<400> 37
```
tttttttttt ttttttttta aattttatta taaagacctt tattaggaga aaggacatat      60
tttctatttc ttacttttat tttgtgcctt gaaggacttg tgaatgtata gaataattat     120
tttttcttac tgcttcctct ttgcaaccca acctccacca agtcaatcgt gaaggtagga     180
agaaagctgt atttctgtta cttttaaaaa tgataacgag aagaaattaa aacaatggct     240
taagagaaag aggatgtaag gagtacaaag caaaacttaa caaagagtta gtaaaggaac     300
ttgcattgac aattcactca gccatgttaa ttttatcatt aata                      344
```

12

<210> 38
<211> 543
<212> DNA
<213> Homo sapiens

<400> 38
tttttttttt tcatgtttca tagttttatt gagtcttttt cagttttaac tgtccatggt   60
aagtacagtt ctagtgacca caattatgaa gctctgctcg tactaaaaat agcagataca   120
aagttggctg ccatgcctta cacacactaa gacacacaca cacacacaca cacacacaca   180
cacacaaggt tttgcatact cttacatgca aacagtacta tgctattata ggaaatgtac   240
tttcctttta ttaaaaatac aattacacac aattagtctg ggttttgtta agctaccact   300
gatttagata aacctgagaa agctcaaaat atcaagtaac actgtttcca tactgctcat   360
tcaatggcac tatcactcaa aaagaaatct agttcaatca tctatattaa aatcacagat   420
aatataaaaa taaacatttt ttgcaatagc actaaaacat actataattc aaattcacaa   480
attttgatat gtaacatata ttccccttca tattaatttg tgattatgtg tataatacca   540
tgt   543

<210> 39
<211> 186
<212> DNA
<213> Homo sapiens

<400> 39
tttgtgaata aataaaagtt tatcattccg tacaaacgca ctcattttcc acaacagttt   60
ttacacgagc cgcggtggcc tggtggtggc acgtggggggg cggccccgcg gcggcgtcac   120
agcggctcca ggtcctcgtc cccgcacgca tactcgtaca ggtccacggc gcccagcggt   180
gagggc   186

<210> 40
<211> 413
<212> DNA
<213> Homo sapiens

<400> 40
tttggaaaat gacaggtttt tattgctatg tttgcagtgg cttttttagca cagtaagaat   60
gtccccgcag gcccaccacc ctcacgcagc cccagccctc cagcctctgt ccgggtgtca   120
gggaagcctt tcttggggtc actcagccgt ctcgggactg gacgtgacag acatacgtgg   180
gttaaagccg ctacacagaa gactggaggt gcaggaagtg catccgcctt gagcctggat   240
gtgggagccg tgtccggggt cccttcctgg ggctgtgcac gcccagggca cagggtggga   300
agcctgagca ggccaggtta gcagcccaga cacccaggat ggaatattgc agcctcttgc   360
cccacagaca cccaagctca cacaattgat attggtggtg attggcgcag gaa   413

<210> 41
<211> 365
<212> DNA
<213> Homo sapiens

<400> 41
ttttgagaga aaaggaaaaa ctttagttaa aatctttaca ataaaataat tatgactata   60
aatctcttta gttaaatatg tacacattac atggtatttg tataaagaat ggaaatggat   120

```
aaagtttttc aggcaaatct aatgcacaaa tacaccatct tttagagtat aatgtcagtt      180
tatcattcgt taacagctgt gttagacagt ggctctgctt tgtgcaaaac gtgataaaca      240
aaattaggaa aaattctgca aaattattta gttccccaag gaaattacta aaatagaaaa      300
tggcaaaaga aaaaaaggtt gcacactgaa gcttgattgt atactcaggc tacaatgacc      360
agcac                                                                  365


<210>   42
<211>   489
<212>   DNA
<213>   Homo sapiens

<400>   42
tgaattgttt acaaatgttt attaaatgtc agtaattttt acaaagcaaa tattaatagc       60
aagaggcaaa tgttttgcaa aatatgtaca aaagtaaaaa gctgtaatga actagcaact      120
cattttataa aatcaaacca ttctttccac ttttagacct cctttagaaa taatttattg      180
cccatcctga actaaagcac tgacaaaaaa atttacaaca attatcagat aatgtgctta      240
gttcctggaa agttataaaa agatatatgt aaaaaaaaaa tcctaagcca caaatatttt      300
atagagctaa tacgagtcat gttttgttag gtacagtatc tacggggtta ttacaaaata      360
tacttttta taaggcttct tgtggtaaat gagctctcac cagagtagag tagtttagaa      420
aagccatttc aaacgttttg cgattctgcc ttcaagtaag aggtaaaagg taaatggcat      480
agtttgttg                                                              489


<210>   43
<211>   321
<212>   DNA
<213>   Homo sapiens

<400>   43
ttgaaagccg ttatgtcctt ttatttggtg tgatagatga ctgggtatct ctctaactct       60
atttgctgac ttcagcaaag aatcaatgat gagcttagtt tgcaagaacc ggttccatca      120
catggaacgg gaacgtatgt taagctctag cagccacctt ctgtcaaaac tgtttgtaaa      180
gcaattacca taatcaggtt atgaggtccc ttggttgggg gaaaaagtat tatcaagact      240
tggcacagca catgaaaagc aacatgttaa gtttctaggt tttaagcaaa catctgacta      300
tgctattttc aactacatca t                                                321


<210>   44
<211>   363
<212>   DNA
<213>   Homo sapiens

<400>   44
tttgcacaag tctatggctt tactactttt caagacaaaa gtcacatatt aaaatacaaa       60
ctactcaaaa gcaaatagtt gtcaagaatg tggtttacaa gacagatctt acagataata      120
cagactatat tatgatttat ctgtttgaaa acagaaagta gtgtattata ctgaattctg      180
gtataaggtg cgcaggaaac tttacttaca atcctttatt ttcataaggt aaacaccaaa      240
gtatttctca catatattac caccagattt tttttaaacc aaattccggt ttaaaaatca      300
cacactgaca acacagaaat acgaaatgct aggaaaagtc tagcatatga aggaaaaaca      360
tgt                                                                    363


<210>   45
```

14

<211>   412
<212>   DNA
<213>   Homo sapiens

<400>   45
```
ttttttttct ataaaaatat aactctttat taaataacat gcacaaatat caactagtca       60
ttaaacagat atttagaaca aattgtaaag aaatacaaat ccttaggtac aatttagtat      120
cttgttcatg atatttgaag agtttaaaaa gaatcactga ttaaactaac catccttttt      180
ctttctgaat ccaaaacctt ttcaggcata tactccattc caaatttttt tctagcattt      240
cagagcttca gaatatcttt aataccaaaa gcccttaact acttatttga ttatacattt      300
ccaatgagaa ggcattaact tttcttttaa gctatcatta gctttgagtc tctttataaa      360
agaaatttgt agaagcataa tcatggcaga gaggctccag ctttttgagg ta              412
```


<210>   46
<211>   421
<212>   DNA
<213>   Homo sapiens

<400>   46
```
aagtttcttg gaaatttttt tattctcctt gccaacattt cttttgacat tttattactt       60
aattatgtga cattaagaaa taatttggtt gcatattatt ttcaaaaagc agtaagaaag      120
tagctattga gaaagaagga gggccatagg tttttcaata aaacgttaga aacattataa      180
aaaacgagac tcccattaca tggaaacaca tgatcaaaga tcagactaac acacattcaa      240
acaggcttgg ttcgaaatag agttctccat ttctttcaga tgagcctttt ttcttaggct      300
ctttcagaag cacttcacaa tgaacagagg tcttgccagc tcatttcatt agcggagaag      360
caaaggtatg atggcagaat catgagaaga tggaaataag gcctgaggat atggcttgat      420
c                                                                     421
```


<210>   47
<211>   324
<212>   DNA
<213>   Homo sapiens

<400>   47
```
ttgtcaatgt tagaaacatt tacttctgac gataatccat atagctttct ctgatgttac       60
acagcgatta catctccttg tgtctaaatt aaagtcaaag tatgaatttt aagatgattt      120
ttaattattt aacaagtaga aatacgatca gtgacaatta tcaattaaaa cattaaacaa      180
cccagttacc ttttcttaac agtcatgatg aaatatccct ttcctgtctt atcagaagcc      240
ttaattattc tctaccacac acaccacaaa agcttcttaa tagagcatca gtgtccatca      300
cacctttgtg tagaatctct ggca                                            324
```


<210>   48
<211>   502
<212>   DNA
<213>   Homo sapiens

<400>   48
```
ttttggaaaa tgagattttt gactttaaca aaacaaatac agattgaatt taccaaatat       60
tgataattca tgtagaacgg gtgccacaga ttttaaagta tcaaaaccaa gagggcatca      120
caaaataaac tttggtgaaa aatatcttca tcaaagaaga aaatatgaga agagtagtcc      180
ttatgcagtg aggagaaata tatttggtaa agtaaatatg ggtagtagat actgaatcta      240
```

```
tagatagcat atattccaaa tgttttttag ggaatatcaa atcagatgat gcttagatgt    300
tatagtaata tcacttatct catttggaat gaaatttaat gtttttaat aaatagcaaa     360
ttttcatttt ttcactacct ttataaaaca aattaaatat ttagagtata actgatcata    420
actaacatca ccttgcattt actaataaat actctaaata catttggttt attattggaa    480
tttatatcct tataatttta cc                                             502
```

```
<210>   49
<211>   398
<212>   DNA
<213>   Homo sapiens

<400>   49
gagaaacact atttatttat ttatttattt attttgagac agtcttgctc ttattgccca     60
ggctagagtg cagtatttac aaattacaca cacataaaat ctggatttct agcttcttat    120
gacaaaggat ctggcaacac cgggcccaca ttcagcccca caggccacag gtgacttgac    180
ttgcctccag ttcacccctg cccctgccag ctttgtctcc tgacaccgaa acagcccgtc    240
agagctgtca ctcgggttca tgcgtgttac ctgtctggcc ctggaaaggc cctggagttg    300
gtggcgccac tccaggtcaa caggcatgtt tagaaggagc ctgccagggg ctgcatggcc    360
gaggagccac ctctccctgc agaggaaagg gatcctgc                            398
```

```
<210>   50
<211>   424
<212>   DNA
<213>   Homo sapiens

<400>   50
tttgaaggta tatattgttt attatttta catcgtctct tccctactgc atcaagcccc     60
atcatcctag catgcaccca ggaaatcagc aaaaacccat ttaagagtcc agacttcaag    120
ggtccctcac agtaatgggc atctcttgtt ttgcccgagc agagcagacc actcgtttcc    180
ccttattctg ctaattgtat ttcattttcc tttaagcaac cacctttcac cccatcctga    240
atcctcagac cttatttccc tggctctagg aattagcaca tgacacaggc ctggccactc    300
agagtgtttc attccctag aagtagagat gagacccaa acgggtcaat gacactctcc       360
acttggaatt attggaataa gtaaatctct tcccactggg ttactgggtt agcaggatag    420
aagc                                                                 424
```

```
<210>   51
<211>   424
<212>   DNA
<213>   Homo sapiens

<400>   51
ctttttattg attttttttc aaaagcactc tatatatgga gtggcaccag atttaaccta     60
tttaaaataa aagtcataca aacacaaaat atatttctgt gtcatgccag ctcattatat    120
aataaacatg ttatgacagc taattctact agaattactg tgaatactta cagtacactg    180
aattttattc tttcacatcc attttagttt taaagagagg ttcacgagtt aaatgacaat    240
ggcatggcta tcttgaatgg ggtgcaaaca tcattgggga atgtggatcc aattaatccg    300
aaggtccggt gtgacccgta ttagttttat agacaagaga agggtttaag atagggtgaa    360
atgagctatc agtggtttca atgtctcatg aaagaaagaa atgcattaaa aaaaaaaaag    420
tttg                                                                 424
```

```
<210>    52
<211>    452
<212>    DNA
<213>    Homo sapiens

<400>    52
tttggtgaat aaactaacag ctttattaat gaaggcaaac atcagatcat tgtatgaata          60
ttatatatat atataaaaag aaatccaaac taacagcatt gtatttcaaa agtactgtac         120
ttctgtttct tttaaagaga cttgtcatct gtttttataa aacaaaatgg gtactcttct         180
cctaaaaaat cctggaaaaa tgaaatagtc aatttcaagc tgatgaattg aacacacctt         240
tctttaaatg cagactattg ctaggaagca aataaagtca agcatcagaa agaagatgta         300
tgagaaatgc atgaaagtca gagaaaaggg atgtagtgaa attactgcta atctttcccc         360
cctatattca aagaccatcc aaaactggtc tttcatacaa atataaaata actataaaga         420
gagggaattt gaaaccatac ccatctgaaa tc                                       452


<210>    53
<211>    497
<212>    DNA
<213>    Homo sapiens

<400>    53
ttttttttcag tattttcctt cactttaatt tttattgctt ctccagttca gataattcag         60
cgcttcctct ttcttcttcc tcaccttgtt catggctggc tgttccatca gcagaacttc         120
cagcgattgc cacattcatt gcataagaca aaggtagtca tgggctcatc agcactgcgt         180
gtctgcacct ggttataggt gcagttcttc ttcttgcatt tgctgcactg gaagaggtca         240
gtggtggtgc cgccagtctt ggccatctgg tgctcacgga tggcctcctg ggtcatggca         300
ttcctcaact ccctcagttc atcactggcc atttcctctg ccgtcatctt ggctataagc         360
ctgcggagat ggccccactg agcacgttcc gccgcacgcg gggttcctgg ggtccttgag         420
gttgcttatg cggctgcgca cgcggttccg gtacttcatg tccgtgctct tgagctcttg         480
gtagatatga tcttcga                                                        497


<210>    54
<211>    423
<212>    DNA
<213>    Homo sapiens

<400>    54
ttttgtcgag aggaacgcac gttttattgg aagtcttggc ggcagggggga gtctgcgggg         60
gcagggctgg ggaaggggcg gcggaggggg cggtgggcgc gcaggtggag cgtgggagat         120
gtcaggtgcc aggggagtcc tggccggatt ccatcgctcc aggtgtttct accgcctgcg         180
gtcggacaga cggcggatgg agctgcggaa agttccctcc tcttcatcgg gttccccagt         240
cctctgctgc tggttgaact tgcaccggca tcttctgctc agcacgatga ggatgcccag         300
gatgaagagg atcccggcga tgacgaggcc tccgatctgc agggactggt agtcgtaagt         360
gaacgggtcg tgttcctttg gactttctgc cttggccatg gtgaggagac ccacacagaa         420
aac                                                                       423


<210>    55
<211>    400
<212>    DNA
<213>    Homo sapiens
```

<400> 55

```
ttttttgagac ggactcactc tgtcaccagg ctggagtgca gtggccattc tcggcttact      60
gcaatctctg cctcccgggt tcaagcgatt ctcctgcctc agcctcctga gcagctggga     120
ttacaggtgc ccaccacgcc cggctttttg tattttttagt agagacgggg ttttgccatg     180
ttggccaggc tggtctgcaa ctcctagcct caggtgatct gcctgcctca gcctcccaaa     240
gtgctgggat tacaggcgtg acgaccacgc ccagccacgt tctgagtttt gaggatccag     300
aaacaaaagg ctggaaagcg acacttctac aggtttactg atgagtccgg agaaaatcca     360
aaaacaaagc cccactgagg gtttgtgaat ttggctgttc                           400
```

<210> 56
<211> 288
<212> DNA
<213> Homo sapiens

<400> 56

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tttgacatct ctatattttt attgaaaata aaaaagtcat ggtgctttct tcctcataag      60
tggcatatgg acaccccag tgctgccggt ctcgcttccg gtacaaaagt ctcagcagga     120
aaccaacctt aatggcttgt tggtggataa gacggcatca acttgtacat ttgcccattg     180
agagaactcc caggagcaac tgtcctctct ccagtacacg cggcacgttg ctaagaaggc     240
agatttcagg atattcacat tcatgcatta cgtatctcac actacctg                  288
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<210> 57
<211> 299
<212> DNA
<213> Homo sapiens

<400> 57

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tttggggaac attctaaagc ctttatttag catcaggtag attatttcat tataacactt      60
gttaacttca agacagcaat taaaatcacg gactggcagc tacctaggcc cctgggagca     120
gtatctcagt ctggggtttg ggtggataaa tactataaga tttaagatga atgtgcccca     180
attaaagggg caaaactact gtacagtagg tctccacaca tatttttaagt acacaggtac     240
tttgcaaact tgaaatgcac aaggcctcct tttatatagt ttgatactta catgagtgc      299
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<210> 58
<211> 407
<212> DNA
<213> Homo sapiens

<400> 58

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aaatgaaaca gtgtgcgtac tggctgttag aagttgatgg cggtctactg tttgatattc     120
actgccatct tcctctgccc cactctacct caactcggga ccgcctcacc taatggtggg     180
ctttgcgctt tatgccatgt agagaagaca ctgggtaacc acagcaaatc aacacgagat     240
cctgtactgc ctactctggg aatataaatg gctctgaggc caggggataa aaccaaaaga     300
tctaggagta gctgaatgcc aagagacgag ttagaacaag ttttagttcc aaagatgatt     360
agactggaaa gaaaactgat ccaaggaggg tcatttctgt gtagatc                   407
```

<210> 59
<211> 440
<212> DNA
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18

<213> Homo sapiens

<400> 59
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aaataataca actagtaatt tcttaagatc ataaattcca ttacagtaac cctggtaggc        60
aactctataa agttctgggc tccaagaaga ggtcagtgca tgccataaat gtgtttgatc       120
tgctgtgaag tatattcagt cttcaaaatg taatgcttac atgagataaa atcggttggt       180
taccacccccc aaattagcat atgccagcct gcacaaaggt aaatagcaaa aactttaact       240
gctcaatctg aattaaccaa agattccttc taggaatctt aaaaaaaaat aagggtacga       300
acactccaag cacttatttt cagatgcatc aactgacata aattaaaaat ggtacaaact       360
aataattgaa caccagtagc gtaacaaaat agaattttca ctctttctgc tttcagtcaa       420
agtggtttgc tcatgtttgc                                                   440
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<210> 60
<211> 436
<212> DNA
<213> Homo sapiens

<400> 60
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ttgagtatgt tatacatcca agagccttat atttcactcc acataaacag taaacataaa        60
agaaaaaaga aacactttgt ctccctatag agcattttat agtataggaa gggattcaaa       120
ttctcttttt aacaaaattc ttgtttctat atagaggaga ttttatattc ttaatgttta       180
caacaaagcc tatttccacc aaaaaagcaa gaagaaatta ataaatgaaa tcctgaactc       240
taaaaaccta agaaataaaa ctgtgaacaa ttctgaaacg gagtgttttt tctaaaggct       300
aatacaaaca taccaaaata gaatttctga gcacgaacta tgtgatttca tttcaatcgt       360
atcactttca tctgattgaa ataatttaga aacaataagg atgatcttaa tctcactatt       420
ttctgcatga gactat                                                       436
```

<210> 61
<211> 438
<212> DNA
<213> Homo sapiens

<400> 61
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tttttgccac gcaattctga ataaagttta ttaaataata tgtacagcaa atgtagtaat        60
tcaacacatc tatttatcaa atcaatccac tgcaatgaag aaaaataaat gaacagaaaa       120
atctatgtct gcataggaca tgctctcagt gtgtaattta aatggcaata ctttaaatta       180
attggttata tataatgtca gttatttttc tttcagaata taacctttt tgtagtaacc       240
tattctagca ataggactta atacgactgc agataaatag gactgcaaaa accaaaaacc       300
caaaataatg aaattaaaaa ggaaaaaaaa actgtaactg agatcagagt tacctttcct       360
ccccaataga atacttatcg taaattttaa cactttacaa tggctatttt tgtgctaaaa       420
atctgtaggt gagttatt                                                     438
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<210> 62
<211> 387
<212> DNA
<213> Homo sapiens

<400> 62
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tttttttttt tttttttttt tttcattatt tattttattt cctgattctt tcccctgcca        60
agtgaccctc tgggaaagcg ggagtttttg ttttgctttc taccagggct gcaagagcct       120
agaactgggt ctggcataca gcaaaggctc attattgct gaatgaatgc atagtttggg       180
```

19

```
gaaggggagg acaagctgag gccacatttg ggacgggtgc tggggtgggg tggagaaggg      240
agctgctgcc cagaggactt cagtaagatt cagggtgggg gccaagacca gcagctggca      300
gcaggttctg agaggggctg ggcctgcctg aacagggaag gggtccagca gccgtggtca      360
ccttgctggg actggtgtgt ggggcca                                          387


<210>   63
<211>   183
<212>   DNA
<213>   Homo sapiens

<400>   63
ttagtgtttt taaaaacatt ttttaatgaa gaaattattc cactccaaaa tatagacaca       60
caattaaata gtttaatcac ttcaaaatat aacatgtccc caggaggttc caacacacac      120
acacacacac acacacaaaa caatacttaa cagcaataca aaaatccata caatagtatt      180
ttt                                                                    183


<210>   64
<211>   270
<212>   DNA
<213>   Homo sapiens

<400>   64
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tgagctgcgg cacgcagagg tgccagccaa ttccgaggag aattgggtcc aatagaaata      120
tttacaaata accagggggc aggtgtgccg tgatcgggaa tcgtgaggga actgagtacc      180
aggggggccct tggctcccaa cagccccagg ccctggggcg gacttggcac aggacccaag      240
agggaactgg ggcattgggg ggccggcaga                                       270


<210>   65
<211>   390
<212>   DNA
<213>   Homo sapiens

<400>   65
aaagtacaca tatttatttt aaaacatttg tcatatttgc taataaattg ataaggaaca       60
aagaacgcct gaatctactt aaaagaacct taatctcaaa tgaagtaaaa tatataaaca      120
atcagcaaaa ttcttattaa cttgtagaaa tgtaatttat ttcatgcaaa gctacattct      180
ttcctatatt ttaacagcta atcaaataaa catttcaaaa aattcattac atcacaataa      240
gttaaaatac tacaaaggaa ctgcaagtca atcaatttat caaaaccaaa ctgagcgaac      300
actatgcata gataaggcca aagttactaa tttgcttata ggtagcactt tgcagctttt      360
tccaagtaca tatttgaaaa tgtagtgaga                                       390


<210>   66
<211>   269
<212>   DNA
<213>   Homo sapiens

<400>   66
tttttttttt aaaagtataa ttttgcattt tattcattca ttccatcagc tgggaattgc       60
tctattgtac aaatacagtt ttgtacaaaa aaatcacaaa atgttacgaa ataaaaaaag      120
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20

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tacaaactgc attacttaat aaatatgact aaaagtagtt aaagtggcaa tgagattgat      180
tttaagttgg aaacattgtt tgacccagca aaccatacaa gctctgttta cagacatttc      240
tacatcaata cagggcaatc ctattttgc                                        269


<210>  67
<211>  473
<212>  DNA
<213>  Homo sapiens

<400>  67
ttttttttta ccagtttata tagggacaga acacacacag aactaagcct tctggattat       60
gttaaccacc aatattatag ctcaccttca tcaaagtaca gacaccagat agggaaaagt      120
ggatgagaag ggaggggaag ggcaggcaga ggcagcaggg ttatgtcatt gatctaaaca      180
aagttttcta aaccagattg tgccatcaat caaaatggtc aaaccgattt agactttcaa      240
catctccagt aggaagtgag cccataatta tatacattac tctgcaaaat gctattggat      300
ttttctttgc tccatccaaa ctctatgtaa tcaggtgcac ctcaggctat agtttaagga      360
ttatgggacc aaaatcttca tatgttcaac gattctgagt acaaacagaa gttggggaca      420
aacactgtgg aaaacagctg cattcctttt ctgcagtata tacaccaggt att            473


<210>  68
<211>  363
<212>  DNA
<213>  Homo sapiens

<400>  68
tttttttttt tttttttttt tttttttttt tttttaaga cttaacgtca ttgtatttat       60
taggttctga aacaatacac attcacatcc ttttgaatac agtacatttg cacaataag      120
cgcttgcttt acaatgaaat aacactaatg aatggcaaga gattaaaatt acatccagaa      180
aggaaaaaaa tgtacaaata aagcatcaca atacaaaaaa aaaaaaatcc taaaattgaa      240
tacattttac agttagccag aattattttg cacataattt aaaaagaggt aattttttag      300
ccttcttttt ttttttaaa gcaagaatgc attgtttttt cacctttgga ggaaaaaaaa      360
tta                                                                    363


<210>  69
<211>  97
<212>  DNA
<213>  Homo sapiens

<400>  69
gagacccctc cctgcccacc ctcccacaaa aaaatttaca gcgctacagt tataacacgt       60
gatgttcaca tctgaaacca ttaacctttc aacacat                               97


<210>  70
<211>  326
<212>  DNA
<213>  Homo sapiens

<400>  70
tttttttttt tttttttttt tttttttttt tttttttggt tttcttcagc cgcagtcttg       60
tctgctctga agaaaattct tgcactgctc agtgagaaat acagcaattc aaattcctgt      120
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21

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agatagacat ccagtcgctt ctgagtgaga ttcatggttt gtaagagttt ttcatcttga      180
ctggctgact gtacattctg ttgcttagca acatgctctt atctccttca ggtatttctc      240
tctaacagac tggaaccagt gaagtgaatc aaactcccga tactgatcca aaagctttag      300
aatgtaagcc acacccatgg caaagc                                          326
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<210> 71
<211> 440
<212> DNA
<213> Homo sapiens

<400> 71
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ttttttttc tagaccactg agaaaatctt tatttacaat aaatttcaat aaaatttgca       60
taaatatatt cccaatgtac aattttcacc tctgatttct tcatatcatt taaaaagtta      120
gtctgtcctg ttctccttat tcctttcaga caccagtgtg cgcctgacat tggcaggtgg      180
aggggagctg ccagggagct ggggggtggc tgagggctca ggctgcttgg ggtggacctc      240
tctctgggcc gccacgtttc agctccatcc ctgccctcca gtttcctctc catggtcgcc      300
accaggatct tgagccacgt gttctcggta aggaggtttt ctgaggcatc ggccagctcc      360
tgcagcttgc gggccagctc ctgcagctca cgtgtcttct gctcatagag ggcctgcagc      420
tgctcactgt gtgcgtggag                                                 440
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<210> 72
<211> 244
<212> DNA
<213> Homo sapiens

<400> 72
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catttaaaat aagcatgaag ctaactgcat gatcatatgg tgagcttatc cgccacatat      120
gaaggcaaat tataagtaaa aatgtaagca acaattttg tattaataat aaatagagct      180
ttaagcattt aacattatca atacttttaa aatttaaata aatgcactat tttatacaga      240
actg                                                                  244
```


<210> 73
<211> 369
<212> DNA
<213> Homo sapiens

<400> 73
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tttttttttt tttttaatta gattgcattt tatttagata aatgaaaatt tgccccaaac       60
agaactagga atcaaatatt gtcttggact agaggtaatt gctaagctgg aagcttatat      120
tgaaaactaa aatttccagc ccttgactat ctgtagttcc aaacatcaaa ggaaaatatt      180
ggaacaattt atctatgtac agagagaggc aactcatggg taccataagc aaaataacct      240
gaggggggaac atttgatatt acaagaagtg gtgagagttt acaagtcttg cattgctttc      300
tattgtacat ggctctgtag taatgccaaa aataacaaaa tgtaggcact tgctctggac      360
ttctgcagt                                                             369
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<210> 74
<211> 437
<212> DNA
<213> Homo sapiens

22

<400> 74

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tttttttta gtgctcacaa gtttatattt ttaggtttga ataaagattc ttgtgtattt      60
tctaaataca cagacaaaac agtccggaa gtttacatac atgtcttagg acacttatat     120
taggtaggta atttacattt taaaaagttg gtcttcgtaa aagatcttcc caaagagctt     180
ttacaaacag caggcggaag tgttcttttg tttacagtgt tcaaaatgcc aatgctccca     240
ctaaataatg gcctcaacca tctctcctca acccaaaata ttgttctcaa tagctagtgt     300
actccaaatt taagtaccca atgtcataaa atttagggct agaaaacatc ttttgaagtg     360
tgcttatccc taacacattt taaactatct agaattcttt aacttcagtt gaaagcagag     420
atacagcagg aaaaaaa                                                    437
```


<210> 75
<211> 394
<212> DNA
<213> Homo sapiens

<400> 75

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tttttttgc aaattccctt ctttcccttt aatgaggagg gggctggtgg agaggcggag      60
gaccagggaa tgcagccatc gggagggttg ggtttggtgt ggggcatctc tcacagaggc     120
tgttggagcc cggctcacgt cccacatgtc ccttctcgga ccagtgtcca gggctgagtc     180
acgggtatcg tcattctcag acctccactg agccctgctg cctcaggtgt tgctgaagga     240
gctggatgtg gtgcagcagc ttcttctggt ggccagccag ggtgatgccc agggcaggca     300
ggtcttctag gctgagctga gccacatcac tgaaggtaca gaggccaaac ttggagaagt     360
tgtcctggta gcactccagt ccaatggctg aaag                                 394
```


<210> 76
<211> 395
<212> DNA
<213> Homo sapiens

<400> 76

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tttaaagcat agcatatata tttatttttat aaaatagaaa aaaaattaaa gtatattgat    60
tgttctttac acattttgat tacactgaat ttgttaattt aatattagtt caaataaaca     120
ttgttatttta aaaaatgctg agtacacgat taagctgaat tttgtttttcc atcagaaaaa   180
gaacttcagg agtatataat ggtctacagg tgcttcccat ccaaaacact aggtcttcat      240
cttttgtttc ttagaccact caggtgcttc tttttttagta aagagtgttg gtttaggtgt     300
aaatatattg tcttcatgct ctttaggcac attcaaagtc tttgatttct gattttctgt      360
cacatgtttt ggttctgttt tagtgagaag taagc                                395
```


<210> 77
<211> 324
<212> DNA
<213> Homo sapiens

<400> 77

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tgatctaaca gcttcctaaa tccaacttca ttcttttttgc agtttaagcc cactttcaaa    120
taaggcatca ctgggatgga taaagaaaac actgagatgg gggatagaaa cattaaaaag      180
cagaaaaact aagcaaaatc taaatcctgt caattggatg tttaccattt cacactgaaa      240
tctttccctg aatagaccag ggacatcact gcctcctgct cagatctcaa agcttcaaca     300
tgctccacaa agcacctccc taag                                            324
```

23

<210> 78
<211> 6824
<212> DNA
<213> Homo sapiens

<400> 78
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tgaagccaag gttagcaatg tccaccctgt gatgacagaa ctgggtaagg tcagttcata   180
gatagagaca attccaggaa gacaaatgag gcttggttcc tgccctctgg atcaggtaat   240
gtgggggaca agaacagctt ccttgcatga gagacccctc tagcatggct tcactaccac   300
tgcttgcagc tcatgcagat gatggcagcc aaagagtccc cacattgacc cccagtgacc   360
tctgtattgg tccactgctt tcacttggct cctgagtcct tgtgggtttt tctccccaag   420
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ggaattggct aagacctatt tggagtgcaa agagccaaca ctgtccctta agtgtctgag  1920
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24

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caacaatgct gagaaggaaa tggtcaaatc ttgctttgag ttttttggga tttcccaggt  2820
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cctaatggac tgtgactggc ggtgggaccc tgtgcacacc aaagggtcca tagtccgtgg  4440
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26

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28

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46

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47

<213> Homo sapiens

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<400> 83
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48

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52

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<211> 257
<212> DNA
<213> Homo sapiens

<220>
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<223> n=a,t,g or c

<400> 90
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53

<213> Homo sapiens

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aattcatttt atgcattttt gcaaatttga ctccatgaaa gtgcattatc acgaagctga      180
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54

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55

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56

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57

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68

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<210>   114
<211>   3188
<212>   DNA
<213>   Homo sapiens

<220>

84

<221> misc_feature
<223> n=a,t,g or c

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gcgctcatgg cgggcctgga ggtactgttc gcatcggcag cgccggccat cacctgcagg   180
caggacgcgc tcgtctgctt cttgcattgg gaagtggtga cacacggtta ctgcggcttg   240
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cccctgcta ccgccagaga ggtggaccca ctccggattc ctccacacca cccacacacc   660
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85

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ggaggaagtg aatagagcct ttaggaactt cctggtcaag cttatggtgc ttattttgat      3060
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gcgaattc                                                               3188
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<210> 115
<211> 297
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 115
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caggttttct catttttcaa attattcttt ggcaaagaac aagttaaaca ttttactaag      120
actgtatatc aacattttac tagacttatt ttatgaagaa tagtgaacgt gtagcaaact      180
tgantttcca aagcgaaaca tatggataaa agtgaaggcc gggtgcggtg gctcacacct      240
gtaatcccag cactttggga tgtcaaggcg ggcagactgt ttgagctctg gagtttg        297
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<210> 116
<211> 232
<212> DNA
<213> Homo sapiens

<400> 116
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acacagtaaa ttttgaatct cataaggaag catatttgaa cctagtcaat ttaatcttag      120
tgttcccttg aaaacttttt ttccctacaa aattttaagt gaaaaataca atagtaaatt      180
aagattacac tggggaaaaa aatgcaggta tcactttact ccattgttat ct             232
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<210> 117
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 117
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caggaaaaat gatatgctac ttgtaaagag ctccctata ttgtatcatt ctgaaatgtc      120
caattttcaa agagtcagag tagtacagaa atgttcaatg ttaaatcact actcaacata      180
agcaatctga ctttgatggt tcacaagctc ttccagatct tgtngtgcct taaagttctc      240
actaacaata tcaattatca gtgcactaca gatatatagg aaaagaaaat cccaggtaac      300
agaaaagcca gatcacctgc ctccaagatg ccgggcac                             338
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<210> 118
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<211> 314
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 118
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atggcagtgc ccttnctgag taagacatga atgccatctg gaggntccat ttgaaactac   120
agtgcagtaa ccaaagaacc taatgttttc aagcataaag gtactttttg tgaacaggtg   180
ggcaacacag gcaggattaa ctaccttcat tctatggact taaattccta tttctttcta   240
gcttccagta gaagactctt gagaatattg ttgttgagtg aagtactttc cgctgaaatg   300
ggaaatgaac ccct   314

<210> 119
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 119
tttattatta taaatgaaaa taccagagtt ttaaaacggc acttaatcat gtcanannnt   60
cagagtcntc caaataaanc agattctnga aaanaatnaa acttganaca anggaggcaa   120
aattaaccct tgtcagggaa ggcattgcca taaacgaaag gacccataac tgcattaagc   180
agagagggac tgactgtcaa tgaagcttct ctatttgcaa tttattcagc aaaagcgaac   240
aattttaaa aagtctctaa tgcaaaattt agttcaagta tcaaaggtct gatcaatttt   300
aaaaggcatt agttttattt ttaataaatt gaactggcct tagatgaaag atatagttct   360
gttcnctatt ttatanctta tttaccgag   389

<210> 120
<211> 436
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 120
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tggaaaagta catattaata tttctttttg gagtaacaga taccattaaa cgcttattta   120
cacatcttca ctgcaaagaa cagttacaca attaaatttt gtcttataaa aggtaacttc   180
ccacatcact ggnactggna cagttaagga tggagatact ggtagtgctt ggttctagca   240
gtctcaatgt ttgaaaggca ttcatttgca agtgtgataa gaagagtcat catgcattga   300
gttncatccg ggtcatgtac tgtaggaaaa tttctggatg ggcagccaca gaatttgggt   360
gtctcatggc ggcttaaggt ccaactatgg acatgtttgg taaatcngtg tntttccctt   420
aaaaccggag gncaaa   436

87

<210> 121
<211> 206
<212> DNA
<213> Homo sapiens

<400> 121
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tttagtaatc ttgatattat gaaacaagtg agtactaaaa caaaaacaac aataaatatg   120
agcactacag caaacatgac atactgtaat agaattttat tgaaaaaaat aacacgtact   180
tactgaagtt ttttttttt tttttt   206

<210> 122
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 122
acacccagac tcagtgactt ttattttta tttccctaaa agtttcccaa atatgantta   60
aattgtcaag gataagaaat ggattagcca gatagtaacc tacctagcga tttctctttc   120
aaaacctttg agcaacctac cagtattatt ttcaaagcct ctaattctac ataatttatg   180
cctgataaat ttaatttaga agtccaaagt atcacgaagt cattcaactt ttttttttaag   240
tctcacatga cggcgcagag ccctgggcat gggggggaa gctgcctgca gagntcgcgg   300
gctgtgcccc gtgcattcca ccggaggcca cggagggctt tcttcattcc tgccttcctt   360
cggtcacctc tctnttttaa ggnaaaaggg ntaaggttaa atatcacatt accnaa   416

<210> 123
<211> 346
<212> DNA
<213> Homo sapiens

<400> 123
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gtgcgggccc tcactggcca gcctctgggt ggccccgcct atcccagtat gaacgtagcc   120
aactcaagcc ctctactgtg tctcctcgag gctgatactc acagcccacg aagcctttgt   180
agccttcatc ttccagcagt tgaaacagat aggggaaatt cagctctccg gggctgctgg   240
gctcccctcg gcctgggacc tgtgccacct gcacatgccc aacaatgggc aggaactccc   300
ggatgtttcc tgtcaggttc ccatccatga tctgccagtg ggaata   346

<210> 124
<211> 394
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

88

<223> n=a,t,g or c

<400> 124
atncaaatta aaaacatgaa aattacacca aaaagatgga actacttttg tagcacaact   60
cagaacttct gttcgtaaca ccggactaga gaagaggtcg cttttggctg aatctaatga   120
ccttagaagg gaaaggccat tgctgggcag gatctggtgg caacgcacac ggaagtccta   180
gaactctatg aagcctacct caggccctgc gggtgcgtct ggagttccaa ggcatttggg   240
ggaaccaaag caatttcagc taacagtgac cagttttag gaatgggagc ttatgatcag   300
agggaccata aaccctcatc caccctagga gctcaatgcc aggaaaaata aaaaataatt   360
ncaaaaaata aaggggaaat agctttttgt gcta   394

<210> 125
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 125
tgggtcaaag ggggctctgc aggtcgatga tctcctcaaa cctgcaaaga catcccatct   60
atgcaactgg attggggggt gtcattccaa acaccctcag atcctgccca gatattcatc   120
tgtgaacaag gtatttcaac actaattttg aaacaattct acatctagca ggtcagttta   180
tcattttcca gaatctgaac tactgtcagg atagactcaa gtgagattaa cacagggtta   240
atcttcaatc ttaacacaat tatcaattag ttctcccagt ggaacgatta aggcttttgt   300
caacatgtag gcatttctgc tgtnaaccta taagtctnca tattaccagt tccccgggat   360
aggataggnt attatgtcag gtcccaagga tagggagttt atgttttcca t   411

<210> 126
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 126
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tttgtacata cgataacccc aganggagct tcacactgca ggcatatcat attgctttca   180
ttgctacacc cacaattggg ttcgaagaga gtgtgctcgt gtttgcattc tgtaagtnct   240
tnggcttaat ccctccccta tctgtgtggg gttccatgtt aataaaatga taggggggttg   300
ggctttgcag gctgggtcag ggggcttctc ctccacttca cctcccaatc caccccctagg   360
cctccattta caatcacgna aatttcc   387

<210> 127
<211> 429
<212> DNA
<213> Homo sapiens

89

<400> 127

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cactaataca taccccctaaa agtcctatat tgctactttc tggatctcag tgaaatttat      60
ttccatactg actttctcca gtccacagtg tatatgaata tgtacacata cagtgtttat     120
tagttgtcag taaaaattct catgaaacta aattccccat ttatttaaaa ggttagaaat     180
gtttagtttg atgctggaaa taaaatcatt gaagtctatg tacagtaaat actttgaagt     240
atatttttat ggaaatcatc tttttgggaga caaatgaaag atgtgcattt tcctatatga     300
aataaaagaa gtgctcaagg cacccccaa cactgacatg gaggcgggtc ttggagacct     360
tgtaactggc ctcccccaca gctcacccca gagctaccat aaatcatgta atactattta     420
tgcctctgg                                                              429
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<210> 128
<211> 439
<212> DNA
<213> Homo sapiens

<400> 128

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cttcatctct ttccattttg cggacactcc ccttcttcta ttctcctta ctcaaaacat     120
atggtttaga cccacatcat ggctttcttg tgggaagcct ggatgggact aggaaaacac     180
atgtttccaa catggtgcat atctgtttgt gcagatatca gacaagattt aatcttgtct     240
aacttatgcg tattgttttg atgtttgcct gtggttattc tgggcacagc aatggtggac     300
attattgaaa atgaacttta ttggcagatg aaagataata gaacatgaag atttatgaac     360
taccataagc tctgcatctc tgggtcttca tttccaaagc agcacttgga aaaccaagcc     420
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<210> 129
<211> 363
<212> DNA
<213> Homo sapiens

<400> 129

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gagtgttaaa ataattacac ttaatatttt aatagtgtgc tgtgaaatac atagtttttt      60
gttttgtttt ggcaaatgtt tcattttgtt ttaatgactt cggtccaata taaagaaaat     120
gaaatacagt gaatagttct tctttcaaga tgagctgtat ttattactgg aacggaagtt     180
gtcatatccg tgatcattag ctttgaactt taagcacgac tgcttttcct ccaaggactg     240
tttttcttca aatgactggc accagcagca taaagcatga cttaaagcag ttttttgaaac     300
ttttgcccac ccaatacaga gcaattgggg ttaatgccgg gaattccagt gaaagccagg     360
ttg                                                                    363
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<210> 130
<211> 809
<212> DNA
<213> Homo sapiens

<400> 130

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gatggtgatg ctgctgctgc tgctttccgc actggctggc ctcttcggtg cggcagaggg     120
acaagcattt catcttggga agtgccccaa tcctccggtg caggagaatt ttgacgtgaa     180
taagtatctc ggaagatggt acgaaattga gaagatccca acaacctttg agaatggacg     240
ctgcatccag gccaactact cactaatgga aaacggaaag atcaaagtgt taaaccagga     300
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90

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gttgagagct gatggaactg tgaatcaaat cgaaggtgaa gccaccccag ttaacctcac      360
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91

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92

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94

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<212> DNA
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109
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110

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112

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115

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117

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118

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123

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125

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126

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127

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<211> 2920
<212> DNA
<213> Homo sapiens

<400> 167
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128

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ggtgaacaga aggatatttc agaaatcaat ttagctgcag gcttggacct ctttcaaggg      180
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<212> DNA
<213> Homo sapiens

<400> 168

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<210> 169
<211> 2558
<212> DNA
<213> Homo sapiens

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<212>  DNA
<213>  Homo sapiens


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<212>  DNA
<213>  Homo sapiens


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ccccaaatcc gagggcagcc cgcgggcgtc atgcccgcgc tcctccgcag cctggggtac   180
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131

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<213> Homo sapiens

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gggcgggttc aacatgtcct ctttcaagtt aaaagaataa aagacttcca gccgagattc   180
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<211> 1763
<212> DNA
<213> Homo sapiens

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tgctggttct atcacaatga aacggctggt ttgtgtgctc ttggtgtgct cctctgcagt   180
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tacttgggag gctgaggcac gagattcctt gaacccaaga ggttgaggct atgttgagct   1500
gagatcacac cactgtactc cagcctggat gacagagtgg agactctgtt tcaaaaaaac   1560
agaaaagaaa atatagtttg attcttcatt tttttaaatt tgcaaatctc aggataaagt   1620
ttgctaagta aattagtaat gtactataga tataactgta caaaaattgt tcaacctaaa   1680
acaatctgta attgcttatt gtttattgt cccgaattca gttggtttaa tatattgtcc   1740
tctgtaattt cgatccttct taa   1763

<210> 174
<211> 571
<212> DNA

<213> Homo sapiens

<400> 174

```
tcgctgccat gaatgccttc ctgctcttcg cactgtgcct ccttggggcc tgggccgcct      60
tggcaggagg ggtcaccgtg caggatggaa atttctcctt ttctctggag tcagtgaaga     120
agctcaaaga cctccaggag ccccaggagc ccagggttgg gaaactcagg aactttgcac     180
ccatccctgg tgaacctgtg gttcccatcc tctgtagcaa cccgaacttt ccagaagaac     240
tcaagcctct ctgcaaggag cccaatgccc aggagatact tcagaggctg gaggaaatcg     300
ctgaggaccc gggcacatgt gaaatctgtg cctacgctgc ctgtaccgga tgctaggggg     360
gcttgcccac tgcctgcctc ccctccgcag cagggaagct cttttctcct gcagaaaggg     420
ccacccatga tactccactc ccagcagctc aacctaccct ggtccagtcg ggaggagcag     480
cccggggagg aactgggtga ctggaggcct cgccccaaca ctgtccttcc ctgccacttc     540
aacccccagc taataaacca gattccagag t                                    571
```

<210> 175
<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 175

```
ggtatcttaa cttttattaa tgttggntat cacggttaat taatttaaaa tgggaaaata      60
attcaagttg ttagttgaaa gaattagaca ccagtgtttt ggtatcttaa cttttattaa     120
tgttggttat cacggttaat taatttaaaa ttgtggttta ttaatatttt aagttactct     180
catattatat tttattaatt ttttcttatt taaaaagctt gtctctgcca cttcctgtgt     240
gacctgggca agtcatttta cctctaagag cctcaaattt cctcatctat aaagtggaaa     300
tataaataca aagcttgcag aaatgtcagg aaaataaata aattaaatgc caaatagtca     360
atgagggata ttaggcaaag gccagttttg gtgggcattt taacctatgg agactcagtg     420
cctctgtgtg tcccattatc acctccaaga catcctggca acaccaccgc tg              472
```

<210> 176
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 176

```
gattttcagg ttttatttgc ctgttataat tctgatatta tgtacatata tatatatact      60
tttgtttttt tgtagagggc ttatcagtag accaagcaca ggcatacagg gaggctgtgg     120
ctgctgagca gtgctgggag aaccaatctt tccttttttt ttgtctgttt ttatttttcc     180
tgggatgggt tcatcaaagc taattgctat caatcctaga aaccacctag ggactcagac     240
atctgcctac acactagtgg cgtaaaggga aggacagggg tacaaacttt caaagtcacg     300
gtgtatttac attcccaagg tggggcgggg aggaggctga ggaagacaac tgttcagacg     360
ataggggagg gcagggctgc taaggggtcc tgggggggttg gggttcttcn gg             412
```

134

<210> 177
<211> 490
<212> DNA
<213> Homo sapiens

<400> 177
```
tttttttttt tttttttta cagagtggga aacaacttta atgagaaacc cagtttccca    60
gtttcccttt catttcaaga ctatgacatt ccgacttctt tgagggcttc cattgcctag   120
gtggcctttt tcttgtagtt aggcattctt agagctctgg gcatgggctt gtcttggcca   180
aaatgtcttt tagcaaagta atcatatatg ccaataggaa atagtgagca aggcagatcc   240
acaagtaagc gcctttccct ggcgtgtaat aggcaaaagg gctcttcgcc aagatagcat   300
gctggatgtc ccgcagcacc ggagagaagt ccttgctggc taacgagttg atcaatagga   360
ggaaattccg ctgtgctaag atgtagtcct ggccgtagtc ttcctgtacc tcagcgggga   420
ggtggtccag aatgtccttc tccagctttt cccacttgtc actggtgcct gcgatatttg   480
ttaagaagcc                                                          490
```

<210> 178
<211> 445
<212> DNA
<213> Homo sapiens

<400> 178
```
aaattttctt gatttaaaa aatgtatttg tgttttgcag gttggaacgc aaacccagtc    60
tggccacgtc ccgtgaagtt gtggacaaaa tgtttcagtt tctgttcacc tctgtgcgtg   120
tgtgtgtatg tgttgtgtgc atgtgtgtgt gtgtgtgggg gtggggatg gggtaggtat   180
gtgcttttgg ctcatgtttg tgatgataac tgaagtcttt tgtgggtccg acctgttgta   240
gggtgtgggg gaaagtgaag gaagagaatg aaggtgagtc cccgccgttg caaaccttca   300
ccaaaccacg cggcccagtt ttcgtgagta ccctgtgtc ccagagagga ggacccagcg   360
tcctcggctc tgcgcaaggc tttcttggtc tggtgggtac tcgaggcagt tgagaacctt   420
gctgagctga gcgggcacct cgcct                                         445
```

<210> 179
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 179
```
ctggttcaga tttttttttt ttaagatgta tccaataaca ctcacgaagt aattaaaagc    60
cactttaacc ctgctagtca aatagctatt ttatcaaaga tgtgtgcata cagatgtata   120
tatatataca cacacacaca cagtactgta cagaaacaaa catatgcata cctactatga   180
acggccaagg caagggggat gatggcaact tgactagatt ctgagaactg ctatttgtcc   240
acagatagca tgtcaatgtt gggatgggtt ggggagtgag cgtaggctaa gaaaaaaaga   300
gatgaagtga ctatgtgctt ttctttaaac ttagtagtta cagacatagt acaggactct   360
actnaataat tagtagagat catngaaagt ctggttggat attgaccatg agaccaacag   420
agtgaccact attacttaat gcaacatttt ggaaagtcna caactgatgg gaaa          474
```

<210> 180
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 180
```
cactttataa gtttattagt ttacaaacga ttgcaacatc ccgttaataa aatggaaacg      60
taagatgact tagtatttta aataacttga agctctgtac tgtggctctt gttcataaga     120
aacactgaac caacaagcag cagattcagc ccagccaaga ctctgatgcc ccagtggaaa     180
tcactactca caagccttaa ttgatacagt tttacactgn tttgcccaag anntgtacna     240
taccaactca nttaagagta ttntcttcag gaaacaattc atatcttcac atagtcatta     300
aaaagtttaa caatttaatg agtaggtttc cctatcacat tttggcaata tcataaaatg     360
gttttagaca tgaaagagct attatggatt tagaaggcct taaatttcct aaaccaatat     420
tgaacatcga ttaaaccngg tattggctgt aaatgggaca atatattggc caatccctgg     480
taaccctggg gccccaatat aggnaagtta                                      510
```

<210> 181
<211> 589
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 181
```
atagctacat actttattca aataccactg ggaggcaagg ggtaagaggc aagggcagaa      60
tgtacaggtc aggattctag tgtcttcagc ctgccgacag caacctgggt gctgggccct     120
gtgtctcctg gagccaaggg ttagggcctg agcagctgtc actctctggg aagcccaggg     180
agtggggctg actgagcagg ggccatagag cctagtaagg gaagagggag ctggcaagga     240
gcccagggag ggaggctctg tgaattgtct ctgattcctt tcctggagcc cctgcctcgt     300
cacctcctgg gatgcgtctc aaggtcatgg aggttgtagt ggaggaggac tgggggctgt     360
ttctcagaca aagaatgagg ttattggcac agaattggat caggggccct ctgtgcaact     420
ccttcctgcc ttcagaaagg gaggggggcat tnaagggatg agaactccac taagtccctc     480
gaanccccca atccccaatg aggctcctca aagctactct cagccctgag tgggagacac     540
ggccagctct gggcaagtct ctgggtggct agccttagca ctgtggcaa                 589
```

<210> 182
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 182
```
gagggttttt acttttttatt tggaaataag acatggaagt tgcaaagata gactactcct      60
```

136

```
atgtattcct ccaactttcc ccaatgataa tatctcacac aaccatagat tatcaaaacc    120
agaaaactga ccaggcacag tggtgtgcac ttatagtccc agctactcag gtggctgagg    180
tgggaagatc ccttgagttc aggagttcaa ggccagcctg ggcaacacag tgagaccctg    240
gctctataaa caaaaatggn agaaaaccag aaaactggtg tcatcaattg tgtttaagga    300
aaccgaggct cctttaaaag tttgttataa aattatagat atctcctaaa tattgaggtg    360
gaaagattcc cctgggaagc agcctagtcc agaaagttga agacagtgac atcccagata    420
ggttaatact tctggccagc accataatta cacccctcct tnggt                   465
```

<210> 183
<211> 442
<212> DNA
<213> Homo sapiens

<400> 183
```
ttttttgttc tcaaatattt tttaataaat agacgaaacc acgaaaccac tagactgatg     60
gcagcaaact aaggtcagat gagaggggaa actagagaag gagcagcctg agtcagtgac    120
acaacctcct ccccgaccct ctaggttaag gcacttccgg ggaggcaggt ccttggggtc    180
ctgttacaca gggtgaatgg gagaggaagg gattaggatc ccttctcccc acctttgcat    240
caggacaccc ctgcccttct caccctaccc catggccctg tccctgattt acccactctc    300
atctcacagc actctaaggg gaagtttggg tgggaggagt tcttgtgggt gggagaggtc    360
tgtgcccctg aggaagccga tcctgccaaa tcttgatgcg acaccagcag cccactctac    420
cctcttcatc ccaaggagcc at                                             442
```

<210> 184
<211> 437
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 184
```
tcaagagatt agaaaaattt tattcatcat cccaaactgg attatatatt acaaattctg     60
atgaaaataa tattaaaggt attttcaagt agtaccacaa actatctgta cctgaagata    120
aaaccacaca gtaaactggt aagtacacat tgaatcaatt catctttaaa atatcacttt    180
gtttagaaat tcatatatat gttttgtag ttatgaagtg ggagggacac acaaatagct    240
acataagatt ttcatttaac aaacatgat actattcccc atgctttgaa tgaatcatca    300
gaaggctgta aaatcctgtt attttttca aaggtgcatg aaacaatatt tcatttccaa    360
tagcaaaaat acagtacttc taattttcct tatattctct ttcaaccctta ctgtgagagc    420
tggcttataa ttatatn                                                   437
```

<210> 185
<211> 316
<212> DNA
<213> Homo sapiens

<400> 185
```
aacagaaaac cggcaattgt tatttatttt aaataagaag tcataatact attaggaata     60
gagagcaaga tataaaatca tatcaacccct tttagataaa tacaaaggac aaatgaaata    120
```

```
cacaaaaaac aatatatttt aaaaatccac tgttagtttt taggaaaaag atttagcagt      180
ttccattaag cactacatcc cactattcca tttttaggaa ggacagatgc ttgaggccat      240
aggttaccag ctcttgtttg gtctttaaaa atgcaagtaa gttgctaaca ttttcaaata      300
agatttcaac ataact                                                      316
```

<210> 186
<211> 207
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 186
```
ttttgagatc atctactcaa agtttattgg actgaacaga tacaaaatat ggagcagaaa       60
ggaaaaccca ctggggaggt agaggaaatg acagagaaac cagaaatgac agcagaggag      120
aagcaaacat tactaaagag gagattgctt gcagagaaac tcaaagaaga agttattaat      180
nagtaataat taagaacaat ttaacaa                                          207
```

<210> 187
<211> 687
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 187
```
tgcaaaccaa accaaatcat tttattgtgc aatttccttc taccagaaaa ttactaaaaa       60
tataaatatt aactctctaa aaaatactca gaatagatct gtaatcttcc tcctcctcct      120
cagaactgga gccaatcttc ttctttaaac ctgatggatt gcatacatgt atgtcttcca      180
tatcagccac atacacaaca ttcagataca cttccgtctg tgcaggggga tacaccagcc      240
tcctgccagg ttctggaagc tcaccttata atctaccagg ataaagctgt gtgctgagta      300
ggaggttatg gtggggttgg ggagtaacaa ggagataaaa gaccttgtgg tcccaacttc      360
cttatgtgga cagagaagat aggtccttta ctcctcctca ttaccctgnc ctctcatgga      420
ctgggctaac tgaaggccaa gctcccagag aagctggact cactgtgcgg gattactgag      480
ggtgtggctg ccaggctaca gtcacaggaa ggncagactg ttgagatgga catggaaacc      540
aggtgaggct ttggatggna agctggtctg gggcaaagct ctgcaggatg agtagtagct      600
gttccggcgg gntttgggna gccccagacc ctagcaccag gtactatgtg cagcatctaa      660
gaccagnacc agtctccaag agccccc                                         687
```

<210> 188
<211> 587
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> n=a,t,g or c

<400> 188
tcaaataatc catctaacag ccatgagacc actcaagtat ttgaggtcat cagctgcgtc   60
catcaagaca tgatattgaa catggacacc atctggtctg ttggtctgtt tttgttggca   120
aaggactcca aaaggatgca gttgtatgtg tttcagctga accacatacc atagctcctc   180
tcccctcaca aaagggtttc tctggggga gaaaagtaac tgattatacc tctcatgtct   240
caaactgaaa ttctgagaag caaatggtca gttgagggcc ccattccaga tctgccggga   300
cgtcctcaga tgtccagagc tggcaaaagg tggagcaggc agcagctttg ggcaccagcc   360
tgtctctttc tgttctgata aggccacaca catggctttt tgtgataagc ttccagccca   420
tgccactgaa ataacgttta agaacctggc tgcatttcac agaaatagcg taatgggaaa   480
tcattatgta attaaacaaa gcatgaagct cattatcctt ttccttttaa caaaccttca   540
atttcacatt ttagtggaca ctgtggnttc cagagaatat atggatt   587

<210> 189
<211> 469
<212> DNA
<213> Homo sapiens

<400> 189
atgtaaaact gactttatt acaattaaaa aagaacaaag acaatttgat aagtgccttt   60
aattacaaca tacctgctat ttacatgtaa tcatactttt atatatagct tgaataagtt   120
ttattacatg taaactataa gatattacaa gttaaactcc agtcttttct ggatattcaa   180
ttgaaatact actggcagaa acatacagaa aacaaatacc catttcagtt cctcaggtac   240
cattactggt tgaatgatca agatctggcc acagaagaga agtggaaata tgcatcaaaa   300
caaaacttat tcttaacatg actaacagta ttgttatta aaccctaaac ataattaata   360
attggatcat taaaaacaca acttcaattt atatagcacc tttcttccga agagttgaaa   420
gcattcgtgc ttatctctat tatttcgttt gtccccataa catctctat   469

<210> 190
<211> 458
<212> DNA
<213> Homo sapiens

<400> 190
tccgagataa gaattcactt ttatttttcc agaattaata ggaatgtcat tgtgctttga   60
agaataaaca aggaaaagaa tgataaaaga gttggaaaaa tgagcagggg tcatgccaag   120
taagaatgtg tacgatatgg taggtgtcat tggtatgtta taaaatgtat tatgaaaata   180
ttttgatgat atttcaaaag ggaaataatg ctacctaatg ataatatgaa aaaacgactc   240
tggctgctgt agggagaaaa tataggcttg gagttgggag aagagtgaaa agaaggccag   300
ttggagacaa ttatactaca tttagcttta ggaaggtgct gaaggagtca tggattgaga   360
ttgtttttcca agttttcagt tgaacaattt caatatggtg gcattactta atgacatagg   420
gaggccagag aacaaacaga tttggaagga tgtggtag   458

<210> 191
<211> 476
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

139

<400> 191
ttnggagtta cttaagagtt ttacttattg ctgttcttaa attccttccc ctaccacttc   60
ctcttgggct tttttatttc tcttgttgat caatctcttt tttgtgatac ttttcattga   120
atcatctcga ctcctttatc ccatccttta ctcgactcaa actccttatg ctgaactttt   180
caatccaaaa tttctattgt tttaggactc tgggaagcag ttgataaaaa gataacacga   240
gctactgata tggtcaggag atgttttcta aacaaattgt agaaatataa acatgaaatg   300
tggcaatgat ccctttaatt agatcattga gcaataaagg atatgaacca ttagtataaa   360
tattcaattc agtctttccg gattgtgttg ttagataaga atacatccaa aaagggccac   420
agatcgaggg agaaaccaag gaggggtgag gtcatgggtt gagtgtaatt ggttct   476

<210> 192
<211> 582
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 192
ttttttttta agtacttatt tttctttatt tttatttatt ttcttttttgg gtgacatata   60
acttaagtgt ggtaaagtat ataaagggca cagatcttaa gtgtaccagg taatgaattt   120
tcacaaattt atgcatccat ggtaaccgct aatcagagaa catttccagc acccagacgt   180
cttccttgtg ctctttccct gtcaattccc ctgctccaga agcaaccacc catctaatgc   240
ctttcaaaaa caggcacaga gattcgttgt gtctgttttt gaacttcatg cgaatgaaat   300
cttacagcat gtcttccgtg tgtctggcat ctttagctct ttatgtctgg caaagtcttt   360
tatgtcattc tatgtagcag gagtttagaa ccaactttat gggccgggct tggtggctca   420
catctgtaat cccagcactt tggggaggcg gaagcagaag gcaggcagaa cacgtgaggc   480
tagggagttc cgagaccagc ctgggccaac ataatggaan ccccatctcn actaaaaatt   540
caaaaaatta gcgggcntgg gtggaaggtg caaccggtaa cc   582

<210> 193
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 193
aagagttgca tattttactt tattttattt aaattaaaag ctacagtctg gcagcgattc   60
cagaacaggg taaggaggtt cctcacaggg gtcagagaag agcggagaaa gacagactga   120
cggagactga gacacaggag agaaaggaca aggttaaggg agaactgtat ctgatgaaca   180
cacacagccg gctccatggc gggtgacggg gagctcacat cagcccaatt tctcctcccc   240
ggcacccgaa gttcagcggt ggagcagtat gtgggggcgg ttaggaatca agagaccctc   300
ccttccccac cctaggtcct tntctcggct tggtcgtgga gcacagcaca ttaccagaaa   360
aagncaaggg caattgangg gcagggaaac cgggagnata ttntacacgg gga   413

<210> 194
<211> 455
<212> DNA
<213> Homo sapiens

<400> 194
cttcatcaat atttattggg cgcctattat gtgcaaggcc ttacactagg cgctgggggaa   60
gatacaaaga taaatctgac agactgccct caaagagctt acagtctagt ataggagcat   120
acagtctctg gagaagatat tttaagtgta actaacctcc cccatcccac ccccacaaaa   180
aaaaagaaaa aacctactag acttggtttc ttccatttac ttttagttta gcagcttcac   240
gtaaaaagca taaatctgaa agtcttttaa aatgcatact tttactggta aacaaaattc   300
attttcatta gaaaaaatgc tgaatattta ttgcaattaa gaaaaatctt cagccgggca   360
cggtgggctc acacctgtta tcctaacact ttgggaggcc gaggcaggtg gatcacttga   420
ggtcaggagt ttgagaccag cctggccaac ataag   455

<210> 195
<211> 444
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 195
ggcagttttt cctgtttatt atatagttat tctaaggtgg taagtgtcac aaagttaact   60
tcaagaggaa taacatggtc cagtgtgaaa cacaaggtac aacattttac aatgaaacca   120
cagcacaaag taactgaact ttcaaaattg ggtagttcaa tgaaacattt tgtcaaccct   180
tagctctata aagctctgct gatggactta gttgatggat ttaaaaaata tattgctgtg   240
tcaaatgttt taacacaaaa tgtttttttt taaagagaat acacatccaa tcaactgaaa   300
ctgtgagcag aaagtatgta acctctttat aaaaaccgtt atccaaattt acaacattca   360
taatatattt caaagtanag agttcttaga aaaataaact caattccttg cttactgatg   420
agtatcaact cctcaaaaca catc   444

<210> 196
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 196
aataccattt tgagagtaat tttaaagact aatgcgaaag ttcgggagca cattgtatat   60
ttgaaataag tgtagtgtgt gcaaagacca ttttctacct gtggataaaa atcaattccc   120
ccaaaggcct aaaagcatga acaatgttta ttttcgagta ataattaaa ctacatattt   180
aacatggaaa aaattaaatg aatgtcaaaa ccaaaattaa gaactataag caaagcatgc   240
agtctctgtt aacaaaactt agttgtgaaa ctacatttt cattttgtaa atgccattat   300
ttcatttcat aaaatggtaa aaatcctcag tatcattctt tacacttgat gcggcaaaca   360
cttcctttcc ctatttttcct cggnatttcc tgcaaaataa atctaccatc tcaagttccn   420
taatggttca tactttcttc tcaacatatt   450

141

<210> 197
<211> 447
<212> DNA
<213> Homo sapiens

<400> 197
atcaatcata tttctgtcat ctccaaccta agatatttt tagattgtct ccctattctt   60
tgattcaaaa gccaattaca gaaactatga acttgaccta attctggttt ttgacaatta   120
tgagacagaa ataaagaaat cgcaagcagt tctttctttt gcacactgac catttttaa   180
ttacatcatc ctctatgatg atggtgcttt cacaactgca gctctcctgt atgtcaaaat   240
cattctggtt tccaggtaaa tggacaaagg agatttgcct tcagtgtcta gaaggcaatt   300
tacttttcag ctgccttaat tacctatagt ttaaagaaag gaatgccaca tatagggtcc   360
tttaaacatc taaaatgggg aggttggcct ccaaggggca ccattcccaa acatttgatt   420
tcaagtccca gaagcctttc atatatg   447

<210> 198
<211> 288
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 198
gcaacaaaag aaactattta tttggaatat gcattaccag tacaaattag gagactgtaa   60
aacctacacc gtgttagtat cattagagaa cacaaaagtt cagttggaat caaaagggac   120
agaagcctgt gctctcacag aagcagaaaa gcttaaactt tcaaaaccaa aacagagcag   180
agtttgcagg tttatattct gaataataag aaatggggng gggtagggg agaataaaac   240
caacaaccaa aggaaagcat ttcaaattga aaatgccaaa ggaaagaa   288

<210> 199
<211> 318
<212> DNA
<213> Homo sapiens

<400> 199
tttttttttt tttttttttt ttatttttcc ataaaaatgt aatttaatg atacagaaat   60
agtatatgta catttctttc cacagcagca cttcattcat ctctaaaaaa tttaacaaaa   120
ttaaggctaa atcagagcga gctgatagga aggggtattc tatgtggtgg tcttcttaaa   180
gaatgttctc ataaatatag gatgttctgc agacaagaaa taaaaataaa acatgctgaa   240
caagatacca aaaatgggaa atgcagtaga aaatgagccc ctttctacca atctactaag   300
aatcccaact cccctggg   318

<210> 200
<211> 231
<212> DNA
<213> Homo sapiens

142

<400> 200

```
tctatttaga tcggatttta ttttgcaata tttattatat attcaattca aatgtactca      60
ctattgtgct aggcaattga aagtaaaaag tataaagctg cattttgcgc tctcagtgag     120
gtttaagtca gggaaatgag gcatgcacac aaaataacga gaaagtagta taatagctgt     180
gatcattagt tatcaaaata agtgaatgag ctaataatca ttgttagaat a             231
```

<210> 201
<211> 460
<212> DNA
<213> Homo sapiens

<400> 201

```
taacagaaaa aagtcaaatg acaatttaa tagactttaa aacagtgtac aagtaaaaaa      60
cactggtttt gtatttcaaa agttgaagga agatatccag tcattaaaca gtctacaaaa     120
catatgccag taaattacat aaaagactat gtacaatata aaaagagctg aaaacagtct     180
tcactgtaaa aataatttaa aacaaacttt tcaatttaaa atatcatcta tagcacacaa     240
acatcatgca aatggaaaac taaatatact gcattcttta gtgtagccaa ataaattcag     300
attgagacat cttataagta agggaaatgg ccattcaata cgattttttt ctctggcagt     360
aatggtccta gctgggtgtt ttatgcataa agaacagcta tatttcaaac ccttttttatt    420
gtaataaata ctaaagcaac agaggaatac tttattaatt                          460
```

<210> 202
<211> 440
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 202

```
gtttattaaa ccagatttat tctccacaag ctgaagatac ctgaggttac atgaggactg      60
gcattaaata atttataaat gtatttttga ctgacagact tttatcataa ggattcatgt     120
gtttacaaaa gcaaaatcca acctctccag agctagaaag tgggaaggtg cccgggctgc     180
aacacagcct tgggggagga tgaggccaca taattctctc tgcccacact ctcagaatgc     240
cccaagaagt tagtagctac acaaagccaa gccttggggg aaaacctggt ccgtggtgtg     300
gactctccaa aatgcagacc caaccggang ccgggcccgc ctttccatct ggaggcactg     360
cagggcttct gaaagcggcc catcccagga gcctggcaaa caccccagа gaccctcagg     420
atgcgcagcc ccggggcttt                                               440
```

<210> 203
<211> 210
<212> DNA
<213> Homo sapiens

<400> 203

```
aaagtaaagg atttattgta atctgcttac agtcctttgc aaagacagac atatgttttt      60
gcataaagat ataaattgct tcattttaaa ctaatttagt gttttttttaa attatatgaa     120
cttttggtga attatgaact gtaccaaacc aagattttta agagcaatat ggtacaaaaa     180
taagagcaga cagacaattt ggactgggac                                    210
```

143

<210> 204
<211> 529
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 204
```
ttttttgact agaaagggag cactttaatg aacagaagta cagacgtgct ggcaaggatg        60
gaaatctcca ctggttcctg gcccccttca cctccatgca tccccagcat gggtgttaat       120
cattacccaa gctctcgctg ttccccctca cccctgcag agtccagcag gtctagatac        180
gtgctctttg aaatgtgttc tgggattaaa aatggtgccc tgaggctgtc taaccctcac       240
aaaagacaga cacatgcaca cacgggcctt ggggagggct gtgtattagc agtcaggtgg       300
gccctcctgg gagagcttgc tcaagaactc ttctcggaag gaaacccacc ttaaggtagg       360
gttctgatag gcagantccc agagggacag ccagctgcta gaagatgggg ttatccaggg       420
tttgtaaggt ttaaacaacg ggcagggagn caaacgagtc aaatggtttc ctcgtgcgaa       480
ttttggctcg aggcaaattc ctatagtgag ngtattaaat cgtaacatg                   529
```

<210> 205
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 205
```
ttttcattac tgagaggacg ctttatttcc ttgtgcaaaa gagcatttca agtcaaggta        60
gtcagtcaca cttgggcgag tccggctcac ataggaactg ggggtagaag aggtacttta       120
agttgtactc agtttgggct aagcagttag caatctcctg gtcacacttg cacaacagtt       180
cttggcattt gttctctgcc ggtccgcaca ggacgctctg attgacgcac tgccaggagt       240
agcgctctgt cttggggctg cagcggcctc ctcagctcga gtgtaacaac agtcgtggcc       300
atggcagcac cagtcaatgg catcgcgggg ctggccatgg cctcccaagc cacaaaagca       360
accatatttc atataggcga tgggggttcg gggaccaaca caacccccag ttcctgccag       420
tttccaggat cccangccgg tggnt                                             445
```

<210> 206
<211> 197
<212> DNA
<213> Homo sapiens

<400> 206
```
tttttttttt ttttgttat atacatttta ttgaaaaaaa attttacaac aaaatatttt        60
ggcaaactgt aaaagtatac ataagtgcaa atatatcctc cttttaaaat acaagcaaag       120
tgtgagtata cacggtcata aaaatatctt taaaatatgg tggtagaaaa caaccttgta       180
aaaacgttgt attgtcc                                                      197
```

144

<210> 207
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 207
```
ttcttttagc tgccagaact ttgttaacca cctgggaccg tggacatctt ctctcgtgtc    60
ttgagccctc atccccaccc ctccaagccc tcatgcccac cacaccgtgt cccacattcc   120
ccatcctccc ctgtctgctc cccatctcaa gtccaattcc aaggccagag ccctggcagc   180
ttttctggga gacagcatga aaaggagggg agtggagatg gcagagatgg ggtggagcca   240
gtgcgctgtg ggtcctgttg gcgtggtgat gtgggggcca atcctgaggc cagaggttca   300
tcaccgtgat ctggaagccc acggggcccc tgggtagaaa cttgggaaga acaaaggggg   360
aaaagaaacc agaacaggaa gaagacgagt aagcnttccg agtttcacga gat          413
```

<210> 208
<211> 256
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 208
```
tctgatanct atgtgaaaat tcttttcaaa gtaggtaaaa gccatcacta tatttcaaag    60
aggtcacagt gacatcatat acaaaaggaa ccagattgaa aaagatattg ctgacatagc   120
cagtagtgag attactaaag antaaacaga aatgccttgg gaaattattt ttacaccggc   180
ttgaattgaa acattaaagc aaaatgaaag ctgtaaggng ttcactagtt ttcccaaatg   240
cgttgtcaag tttatt                                                   256
```

<210> 209
<211> 331
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 209
```
ttttnttagg ngcaacaatc aagctctatt tttgtaatta aaaatgtatc caaagggaaa    60
aaagaaacaa aaggaacaat atttgtactc tatgttgctg cagagagcag aactgcggag   120
ggggtgctag tcccaagggg tggactgtgc tgtgctagtg ccctaaatcc tgcaagcgcg   180
gggttggggg ggcgggggag accgctgtcg ggggtcgtga gttccgggcc cttgtgtgca   240
tgttcacgtc ctgtcattct tgcccccagc tgagagagca gtagaggaaa ggcactacat   300
ccaccagcct ttgcattctc ctcggagcac a                                  331
```

145

<210> 210
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 210
```
ctttaatgtt agtgacagtt ctatacagca cagacataac tgaagaaaca cattactttg      60
atttgggttt atgtattgta cttttaatca cttactgaga atatttcaaa tttatattct     120
catcaggaaa atgtaaaaaa gatactgata tatattctat gatttttatg ccacaaacac     180
ccctgttatg agatcattta atagggaaaa caattatact gacatctctt gttccnattt     240
tccccattag gatatatacc atacaacttc aaggataggt tttaaaaata atccattcag     300
ggttattcnt aaaattttgc ccnataaaat tnggccaagg tatggccctt ctggttaatt     360
gcctaaaccc caatatttcc acccatataa aggcntggtg gaccnccatt                 410
```


<210> 211
<211> 349
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 211
```
ttggccaggc tggtgtcaca actcttgacc tcaagtganc taccaccctt ggcctcccaa      60
agtgctggga ttataggcgt gacacntgtt gcccggccaa cattaatatt tttaattagc     120
tactacagct tagagtagct gctatgggag tgtggccttt ttgattaaat actagctgat     180
caaccctaga atataaatnc ttgttttata acatttagat ttaaataaca atanggaatg     240
taaggcncca tgaagggcaa ggaatgcctt tttgttttgt tcactgctgg ggtctaaaat     300
aatgccgggg ctcaaatatt tgttggantg aggtaaatat ggctggact                 349
```


<210> 212
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 212
```
aagttttcta nanttttaat gaagccaata aggcatataa attgtgttct ggcagacatt      60
aagacatgct ttctcttacc aaagaaaatg gcacgtttta tcaaaatttg acaattcaga     120
gtaaagggta ctgagattaa gcttcagagc accaacttaa acaaaacaac caaaaaattg     180
ttatccaacg tgggaaagag ggagcaagga accaagggca taaggggga attaaatatg     240
tgttccntcc catctccaaa atccttttag gggataggg agttctgggc cncttgtgag     300
gccaccacat tgcacccccc aacccccatt cccaggatct taaattttcg ggntg          355
```

<210> 213
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 213

```
tttttttttt tttgagattg aaaccagaca tacttatttt aatcatattt tatataaaat      60
agacatttac ataaatttaa ttttggaaag acctaggcaa agtatacatc attagactca     120
atgggagaaa tactttatgg aagataaatt ctaacgggca cagccaaagt aacaaaaatg     180
tacatttaca tacaactgat ccaaacagga agtaaaagcn ttntggaaaa anggancatg     240
ttgcaantca tttcccctg gacaaangga gggntctgcg tgatttacag gcaattcaat      300
tgttttccac nttttaaag gcaagcctgg cttctacagg tattttantt ccttgggggg      360
gagtttcacc tcntcttttt tcccc                                          385
```


<210> 214
<211> 294
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 214

```
taganaattn nctgtaggtg ttcctttatt ttatcaaaaa tagtaatttt gtataattnt      60
aaatcaggaa atctaagggg acatgttacc caatcacaac agctaataaa atgcctccca     120
ttacagaccc agctttttaa atattcaata acattcacag aattggcaag ttagtctcca     180
aaaaattcta acagaaactg caactcaaaa agtgtgtcta tatcagagat ggtggtaact     240
tcctcaaaga agttacatgc aaatncccag gggtctcatg gtttacaagg tgac           294
```


<210> 215
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 215

```
taagagataa aattatttta ttggttcaaa taaactgaaa aaaatagaca tacaaatcac      60
ttagttgtaa ttttaaagaa ttcctcaaac taaacttgaa tttaagcata agcttatgct     120
tacagattac tatttgctag cttactaatt attatttgaa ttaagcagta agaactaaaa     180
tttaagtttc ttaggtttta cagattgatt tgaagggcat gctgtcttgc taatattgaa     240
ataaatttat ttcttaaaaa ttattatttt actggggtta tgtcagaggc aggngctgtg     300
gttcttgagg gnagggncaa gtttcttctc aggatcntc caaaatgaag gctctcaccg       360
```

147

ttctgccc

<210> 216
<211> 235
<212> DNA
<213> Homo sapiens

<400> 216
gacttacagg ggaactatat atgtatatgt atattttatt aaacacccat ctgcactatc   60
agtattgcac taatgtggaa tttgaaagac tattttgctg atactgtata tatgcgcatc   120
attcctgatt agattgttgt aaagacaatc tgaaagatct aaggttttaa aataatttgg   180
tttgaaaata tacagttgtc ttgaaggaat tgctgtgata catgaaaaaa aaaaa   235

<210> 217
<211> 195
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 217
gccaagcaat caagcaaaac acaagaccaa tagaattagt agacagaagc cttggggaca   60
atggcagtgc ccttcctgag taagacatga atgccatctg gnggntccat ttgaaactac   120
agtgcagtaa ccaaagancc taatgttttc aagcataaag gnacttttng tgaacaggtg   180
ggcaacacag gcagg   195

<210> 218
<211> 343
<212> DNA
<213> Homo sapiens

<400> 218
taatggttaa ggaggaaggt ttattggctt caattcccca gttgatgttc aacactttat   60
ttagttctca tttggatttt aaacatttgc ttgacaaata atttcccatc aatttccatt   120
tctttggaaa gctcccacgt gtaatttatt tttaacatct ctgaagagca gaattaatga   180
tatttcctag ctgttgctcc agatcatgta gggtagagga ggctgaaaac tgctacaagg   240
gaaggcatct gtattgtttc aaaacgtcag gacggtacgg gatactcttt ccagagcgac   300
gagggtcaaa tcccttcatt tatttttttc aaaagggtaa aac   343

<210> 219
<211> 312
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 219

```
tttttcggta gaagaacttt tattgaacag taagattcaa gatttcacca gggtnagagg      60
gggaattgaa aattagtaga aaaattccaa ggggaccagt tagccacaac aaagaatggg     120
gttcagggaa cttcttaggg atgtatcttc ccctcaatac aggtagagga gcagcatcag     180
aagcagggct ttggagagag gcatagaaga gaatcacctt ctcctggccc acgcaagcta     240
cctgggtgta cctntcaagt tcagggccag cttcttgttc cttccccgct cttggtagat     300
gtaaaaggtt tc                                                         312
```

<210> 220
<211> 282
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 220

```
agactttatt caaagaccac gggggtacgg gtgcaggaag gggaggaggg gctgggggga      60
ggccaagnaa ngaagcatgn caccgaggtc cagcttcacg gtatttggag gtagcacggt     120
gctcacagaa agcaggaact tgtccaggga ggcgtcaccc agggtgaact cggcggggag     180
gtgggcgcca gggtcaccag caggcagtgg cttaggagct tgaagttgac cgggtccacc     240
caagcttgtg cgcgtnccag gtcntcaggg ngacangcgt tg                        282
```

<210> 221
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 221

```
tttccaagcc aacatttatt nttgcacaag cctgttgcag tcctgagggg atcttctggc      60
anaggtntgg gtaggagctg agtggccact ggggtgaagg gagacagagg aggctntgcc     120
agcaggntcc tatccagatg atacatgaga tggaggctcc tcagccacac tccagggagg     180
gtggggtggc aaggggggatt cagggataat ggcattaata atacaagtgg taaacaaata     240
accaagaggn tctggctggt tacgntacac aaaanttagc agtaagagtc cgtgctttca     300
cattcctatc agacagatct gagttcaaat cctgtatgtn tagcagggtg aggtatctgc     360
tttctttcag agcccatggg tgcacatctc tgagcctagt tacaacagtt ggcacatagg     420
tnggtgacaa ggagggcagc tctttgattc ctgnttgctt ccacagcaca gagagttaag     480
tatggctggt nta                                                        493
```

<210> 222
<211> 305
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
```

<223> n=a,t,g or c

<400> 222

```
ttaattatng atattccccc tcaccgccct cagggancgg gagaagtcac acgaccatag      60
ggagcttgga cttggtggtc gtcacggtgc tggcagacga gggtctttcc aggaacccct     120
tgctagaatc agccctcata caagtgtgct cagagatccc aggagcgatg gcatcctccc     180
gaagtcacta cccccatatg tctccttggg cttcttcccc ctctctttct ggaacctgac     240
caggcagaac gcagcaactg ncagcaacag cacgcccagg gagcacccca atcagagntc     300
cggcc                                                                 305
```


<210> 223
<211> 263
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 223

```
cactcaataa ttttaattgt cctaaccttc aatttcactg attcccttct tctgcctgcc      60
aaatctgcct ctgaaaccct ctattgaatt tttcatttta gttactgtac ttttcagctc     120
cagaattcct tttcattttc ttttcaggnt ttctatctct ttactgttat ttccattttg     180
ttaatacatt ttgtcttgat gttccccaca tactcctta ggggctttca atgtctttaa     240
cacagntggt tttaagggct ttg                                             263
```


<210> 224
<211> 2263
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 224

```
gagccggacg tgtgcgcgaa gatggcgggc cggagcatgc aagcggcaag atgtcctaca      60
gatgaattat ctttaaccaa ttgttcagtt gtgaatgaaa aggatttcca gtctggccag     120
catgtgattg tgaggacctc tcccaatcac aggtacacat ttacactgaa gacacatcca     180
tcggtggttc cagggagcat tgcattcagt ttacctcaga gaaaatgggc tgggctttct     240
attgggcaag aaatagaagt ctccttatat acatttgaca aagccaaaca gtgtattggc     300
acaatgacca tcgagattga tttcctgcag aaaaaaagca atgactccaa cccttatgac     360
accgacaaga tggcagcaga atttattcag caattcaaca accaggccta ctcagtggga     420
caacagcttg tctttagctt caatgaaaag cttttttggct tactggtgaa ggacattgaa     480
tccatggatc ctagcatcct gaagggagag cctgcgacag ggaaaaggca gaagattgaa     540
gtaggactgg ttgttggaaa cagtcaagtt gcatttgaaa aagcagaaaa ttcgtcactt     600
aatcttattg gcaaagctaa aaccaaggaa aatcgccaat caattatcaa tcctgactgg     660
aactttgaaa aaatgggaat aggaggtcta gacaaggaat tttcagatat tttccgacga     720
gcatttgcct tccgagtatt tcctccagag attgtggagc agatgggttg tatacatgtt     780
aaaggcatcc tgttatatgg acccccaggt tgtggtaaga ctctcttggc tcgacagatt     840
ggcaagatgt tgaatgcaag agagcccaaa gtggtcaatg gccagaaat ccttaacaaa     900
tatgtgggag aatcagaggc taacattcgc aaactttttg ctgatgctga agaggagcaa    960
```

```
aggaggcttg gtgctaacag tggtttgcac atcatcatct ttgatgaaat tgatgccatc    1020
tgcaagcaga gagggagcat ggctggtagc acgggagttc atgacactgt tgtcaaccag    1080
ttgctgtcca aaattgatgg cgtggagcag ctaaacaaca tcctagtcat tggaatgacc    1140
aatagaccag atctgataga tgaggctctt cttagacctg gaagactgga agttaaaatg    1200
gagataggct tgccagatga gaaaggccga ctacagattc ttcacatcca cacagcaaga    1260
atgagagggc atcagttact ctctgctgat gtagacatta aagaactggc cgtggagacc    1320
aagaatttca gtggtgctga attggagggt ctggtgcgag cagcccagtc cactgctatg    1380
aatagacaca taaaggccag tactaaagtg gaagtggaca tggagaaagc agaaagcctg    1440
caagtgacga gaggagactt ccttgcttct ttggagaatg atatcaaacc agcctttggc    1500
acaaaccaag aagattatgc aagttacatt atgaacggta tcatcaaatg gggtgaccca    1560
gttactcgag ttctagatga tggggagctg ctggtgcagc agactaagaa cagtgaccgc    1620
acaccattgg tcagcgtgct tctggaaggc cctcctcaca gtgggaagac tgctttagct    1680
gcaaaaattg cagaggaatc caacttcccg ttcatcaaga tctgttctcc tgataaaatg    1740
attggctttt ctgaaacagc caaatgtcag gccatgaaga agatctttga tgatgcgtac    1800
aaatcccagc tcagttgtgt ggttgtggat gacattgaga gattgcttga ttacgtccct    1860
attggccctc gattttcaaa tcttgtatta caggctcttc tcgtttttact gaaaaaggca    1920
cctcctcagg gccgcaagct tcttatcatt gggaccacta gccgcaaaga tgtccttcag    1980
gagatggaaa tgcttaacgc tttcagcacc accatccacg tgcccaacat tgccacagga    2040
gagcagctgt tggaagcttt ggagcttttg ggcaacttaa aggataagga acgcaccaca    2100
attgcacagc aagtcaaagg gaagaaggtc tggataggaa tcaagaagtt actaatgctg    2160
atcgagatgt ccctacagat ggatcctgaa taccgtgtga gaaaattctt ggccctctta    2220
agagaagaag gagctagccc ccttgatttt gattgaaaat gaa                      2263
```

<210> 225
<211> 2895
<212> DNA
<213> Homo sapiens

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151
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152

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<213>  Homo sapiens

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<213> Homo sapiens

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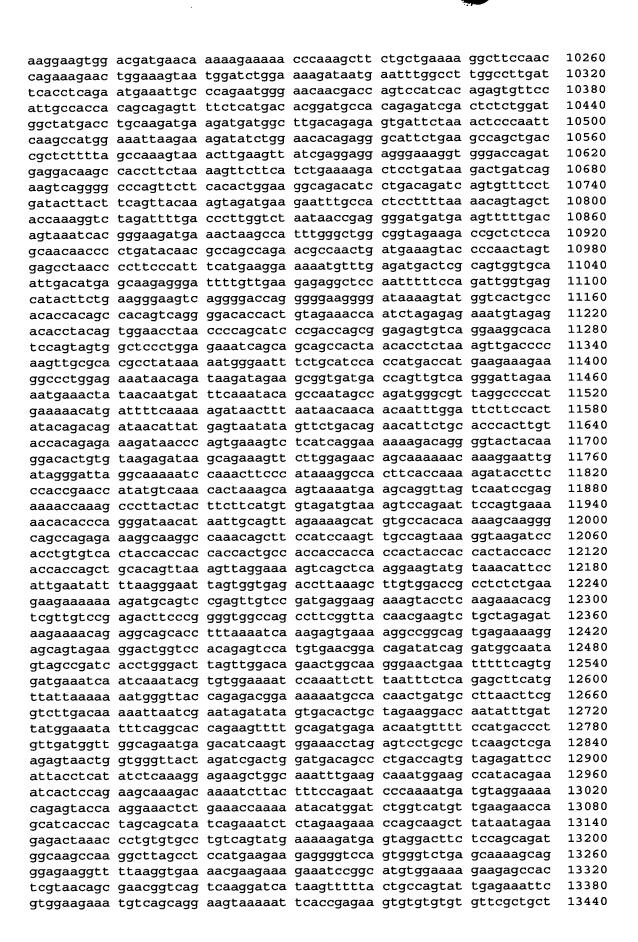```

154

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156

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157

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158

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159

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<213> Homo sapiens

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<212>   DNA
<213>   Homo sapiens

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166

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<212> DNA
<213> Homo sapiens

<400> 237

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167

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<211>  1460
<212>  DNA
<213>  Homo sapiens

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<212>  DNA
<213>  Homo sapiens

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<211> 1592
<212> DNA
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<213>  Homo sapiens

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174

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<211> 2343
<212> DNA
<213> Homo sapiens

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<221> misc_feature
<223> n=a,t,g or c

<400> 244

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<211> 2267
<212> DNA
<213> Homo sapiens

<400> 245
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<210> 246
<211> 2044
<212> DNA
<213> Homo sapiens

<400> 246
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176

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<210> 247
<211> 5926
<212> DNA
<213> Homo sapiens

<400> 247
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177

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178

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<211> 600
<212> DNA
<213> Homo sapiens

<400> 248
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<210> 249
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<211> 1475
<212> DNA
<213> Homo sapiens

<400> 249

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<210> 250
<211> 1383
<212> DNA
<213> Homo sapiens

<400> 250

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gaggcccgtc cctgtgtcat cgtctccaac caccagagca tcctggacat gatgggcctc     360
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<210> 251
<211> 1023
<212> DNA
<213> Homo sapiens

<400> 251
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<211> 1990
<212> DNA
<213> Homo sapiens

<400> 252
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<211>   2088
<212>   DNA
<213>   Homo sapiens

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182

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<212>   DNA
<213>   Homo sapiens

<400>   254
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<210>   255
<211>   1575
<212>   DNA
<213>   Homo sapiens
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<400> 255

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<210> 256
<211> 1800
<212> DNA
<213> Homo sapiens

<400> 256

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<400>   257

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gatctccatt ttgatccctc caatgccgtg gtccacgtgg gcggcgtttt gtgcgttgag   1980
ataaccatgt acagccagat gcctgtgcct gttcacgtgg agcagattgt ggtcaatgtc   2040
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                                   185
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186

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<211> 901
<212> DNA
<213> Homo sapiens

<400> 258

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<210> 259
<211> 953
<212> DNA
<213> Homo sapiens

<400> 259

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<210> 260
<211> 13449
<212> DNA
<213> Homo sapiens

<220>
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<223> n=a,t,g or c

<400> 260

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aggcactgcc ttcagctgag tttatgaaca atgaatgcca accttcaggt tctagaagat    3960
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ttgaggtaaa aaaaaaaaa                                                 4040


<210>   268
<211>   1208
<212>   DNA
<213>   Homo sapiens

<400>   268
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tgaagatgat ctagaagact ctgagccaga ccaggatgat tctgagaaag aagaggacga     180
gaaggagaca gaggagggg aggactacag aaaagagggg gaagagttcc ctgaggaatg     240
gctgcccacc cccctcacgg aggacatgat gaaggaaggg ctttctctgc tctgtaagac     300
aggcaatggg ctggctcatg cttatgtcaa gctggaggtt aaagagaggg acctgacaga     360
catctacttg ctgcgctcct acatccatct gcgctatgtg gatatttctg agaaccacct     420
gacagacctg tctccactca actacctcac ccacctgctc tggctcaagg ctgatggcaa     480
tcggctgcga agtgcccaga tgaatgaact gccctacctg cagattgcta gttttgctta     540
taaccagatt actgacactg aaggcatctc tcatcctcgt cttgaaaccc tgaatctcaa     600
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198

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agggaacagc atccacatgg tgacaggtct ggaccccgag aagttgatca gcctgcacac    660
agtggagctt cgggggaacc agctggaaag caccctggga atcaatcttc ctaagctgaa    720
gaacctctac ctggcccaaa acatgctgaa gaaggtggaa ggcttggagg atctgagcaa    780
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aatgaaatca ttgcagtacc tcaacctgag gagatcaaag acgctggcct tcagacctga    900
tcagactccc aggggcagcc accacatgta tgacagagga cagaggatgc ctgttttgc     960
cccaaagctg gaaattcatc acaacctgag gcccaggatc tgctctgtgc cggtcctctg   1020
ggcagtgtgg ggtgcagaat ggggtgccta ggcctgagcg ttgcctggag cctaggccgg   1080
gggccgccct cgggcaggcg tgggtgagag ccaagcccgc gtgggccgcg gggtgctggt   1140
aggagtggtt ggagagactt gcgaaggcgg ctggggtgtt cggatttcca ataaagaaac   1200
agagtgat                                                             1208
```

<400> 269

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cagggattct gctgatgtgc ccagcaccat cgttctgttt gtgcttaaat ggcacagcat    180
ttggtcagca catctgaaaa ggaaggtgtg agaagcaaag cccatggcca cgttcccctg    240
ccagttatgt ggcaagacgt tcctcaccct ggagaagttc acgattcaca attattccca    300
ctccagggag cggccgtaca agtgtgtgca gcctgactgt ggcaaagcct ttgtttccag    360
atataaattg atgaggcata tggctaccca ttctccccag aaatctcacc agtgtgctca    420
ctgtgagaag acgttcaacc ggaaagacca cctgaaaaac cacttccaga cccacgaccc    480
caacaaaatg gcctttgggt gtgaggagtg tgggaagaag tacaacacca tgctgggcta    540
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cctggagcta gggagcaccg aggtgctact ggaccacctc aaagcccatg cggaagagaa    660
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caatatcagt ttgtttgagg acttgcctct gcaagagcct cagtcacctc aaaagctcaa   1260
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agccatgatc ataatgttaa ctaaataact ttatgtggca ctgcctagta agggaactat   1980
ggaaaggttt ggatttctcc aaatctggga gaattttcaa aataagaaaa taacctttat   2040
atgatatact atgactaggc tgtgtatttc tttttcaggga tttttctacc ttcagggttg   2100
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199

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gatgtagttt  agttactatt  accatagcca  acctgtagtt  ttacatatac  attttcttgt   2160
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aagatgctgc  aatgtgagtt  atcacttcat  ttatcttaaa  gaaagactaa  actggttgtc   2280
agttacatct  gacagaaaaa  aaaaaaaaaa  tcactgtgta  accagggtta  agtggttaaa   2340
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agggaattta  aggaaaatat  taccggggaa  ttaaaaaata  tatatatatt  aaaacaagaa   2460
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<210>   270
<211>   756
<212>   DNA
<213>   Homo sapiens


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ggcctgactg  taacacccaa  cccagcccgg  acaatataca  ccacgaggat  ctccttgaca   180
acctttaata  tccaggatgg  acctgacttt  caagaccgag  tggtcaacag  tgagacacca   240
gtggttgtgg  atttccacgc  acagtggtgt  ggaccctgca  agatcctggg  gccgaggtta   300
gagaagatgg  tggccaagca  gcacgggaag  gtggtgatgg  ccaaggtgga  tattgatgac   360
cacacagacc  tcgccattga  gtatgaggtg  tcagcggtgc  ccactgtgct  ggccatgaag   420
aatgggacg  tggtggacaa  gtttgtgggc  atcaaggatg  aggatcagtt  ggaggccttc   480
ctgaagaagc  tgattggctg  acaagcaggg  atgagtcctg  gttcccttgc  ccgcgtggga   540
ccccaataga  actcagccct  tccatgccag  cccttcctgc  tgcctccctc  ctgtctggct   600
cctggggccc  atgcttagag  cccaggctcc  agccctgagt  gcttccgagc  tggcggactg   660
cccagggcc  atcagaggat  ggtggtgctg  ctgctgatcc  ggggaccgct  gtcttccctc   720
ccatacgcct  ttcatccctc  cttctagggc  ctatgg                              756


<210>   271
<211>   2150
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   271
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atccagtccc  tctcatattg  cctttgaaat  tagcagcctc  tgggtgacca  gaccttggcc   120
ctcagaggaa  tcccgganaa  aggtanaacc  agcttcgcgt  tgggaacgca  ggcgcgctta   180
cgcatttagt  gagggtttgg  cggtctccat  anttaccgcc  gccgcgcgtg  acntcatant   240
ggagcgctga  gggcttggtg  gcgtggggtg  ggggctgtcc  tactgatcct  gaatttgggt   300
cactggtaan  angagttgcc  cattccancc  aggtggaacg  gggaggggta  gccacatgtc   360
tcagatctgc  cattgtctgc  gaaaagaaac  tgctgcgagg  accatcccca  atccctgct    420
tcccttggga  agagtaaccg  ccgttttgta  ggacacttgg  ggacaacccc  gcttgtcctg   480
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aactctccag aggatgaagg acttctgata gtgaagatag aagaggaaga atttatccat    660
gggcaggaca cttgcttaca gagaagtgaa ctccttaagc aggagctctg caggcagctt    720
tttaggcagt tctgctacca ggattctcct ggacctcgcg aggcactgag ccgcctccgg    780
gagctctgct gtcagtggct gaagccagag atccatacca aggaacagat tctggaactg    840
ctggtgctag agcagttcct gaccatcctg ccaggagatt tgcaggcctg ggtacatgaa    900
cattacccag agagtggaga ggaggcagtg accatactag aagatttgga gagaggcact    960
gatgaagcag tactccaggt tcaagcccat gaacatggac aagaaatatt ccagaaaaaa   1020
gtgtcacctc ctggaccagc acttaatgtc aagttacagc cagtggagac caaggcccat   1080
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agggtaaaga dacaatggga aaaagaatca ggggagtctc agagactctc gtctgcccag   1320
gatgaaggtt ttggtaaaat cctcacccac aaaaatacag tcagaggtga ataataagc   1380
cacgatggat gtgagaggag attaaatctg aactcaaatg aattcacaca ccagaaatct   1440
tgtaaacatg gtacctgtga ccagagcttc aaatggaact cagattttat taaccatcaa   1500
ataatttatg ctggagaaaa aaatcaccaa tatggaaaat ctttcaagag cccaaaactt   1560
gctaaacatg cagcagtttt cagtggagat aaaactcatc agtgtaatga atgtgggaaa   1620
gctttcaggc acagctcaaa acttgctagg catcagagaa tccacactgg agagagatgc   1680
tatgaatgta atgaatgtgg gaaaagcttt gcagagagct cagatcttac tagacatcgg   1740
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aactcacatc ttatcaggca tcagagaatt cacaccagag agaaaccta cgagtgtagt   1860
gaatgtggga aaaccttccg agtgagctca catcttattc gacactttag aattcacact   1920
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agtcaacacc agagaattca catgagggaa aacctattaa tgtaaggaac ttaaatttgt   2040
aagtaaatgc tgaggaaatg gcacaatatg aaaaatatta aataaaaaat aaatattggg   2100
caagtggaag actgaaaaaa aaaaaaaaaa aaaaaaaaa aaaaaaaaa                2150
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<210> 272
<211> 1275
<212> DNA
<213> Homo sapiens

<400> 272
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ggaactttag acctcagcaa acagaaatat atgtggtgcc aggagagact gcactggcgt    180
tttacagagc taagaatcct actgacaaac cagtaattgg aatttctaca tacaatattg    240
ttccatttga agctggacag tatttcaata aaatacagtg cttctgtttt gaagaacaaa    300
ggcttaatcc ccaagaggaa gtagatatgc cagtgttttt ctacattgat cctgaatttg    360
ctgaagatcc aagaatgatt aaagttgatc ttatcactct ttcttacact tttttttgaag    420
caaaggaagg gcacaagttg ccagttccag gatataattg aagtcagcaa ctaagtcttc    480
cttcaaagtt gtgatttttg ggaaaatcat atatcctatc ttctcaaagg agaaatattg    540
tacaataata tgaaggctta tattttaaat aattatttttt tctcaactaa ttttttttcac    600
ttaaacttga gagaacaagt tcagctttta tcataagaaa ctcatatgcc tagctagaat    660
atatgactga ctattcaata ccatactgaa gagtttgata ctattaaaat aagccgcttt    720
gtttttttaaa tatgcaggca tgggttcagc ttaattccat aattcccttc cagattatta    780
actcttcata cttacagcaa tgaatctgac aatgttttc aaaaatgtat gctcagggtt    840
atttgtttca agtcataggc cagaacttct aaccatgttt attgtgtcta aaagagttgg    900
ttgctatttt ccttcattat gaatagtcag tattttaaaa gctcaaagta gaagaggagt    960
cactaagccc taacagcttg tccaaagatt taaattctta tttcaaattt gatttgtcct   1020
ttaaggttta gggctatttt atattcagag ttctgaataa ttactttgaa actgtagtat   1080
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201
```

```
cataaaattg aaataaaata catctactag gctgttagcc aaagcatcac cattacaagt    1140
ccatgaatgt taaaatgtac aggtgggatt gtgaagattt actgacatca aaagttcttc    1200
tggaaacaaa cctttgttaa aaaaaaaaag tattaaattg ttttaatagt gatttaaaaa    1260
aaaaaaaaaa aaaaa                                                     1275
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<210>   273
<211>   1719
<212>   DNA
<213>   Homo sapiens
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<400>   273
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cttctgctgc tataacgttg tcaagaaact tgtgggtctt ttacatatgt cacagggatg    120
cactcattta gataggaggc tcctcacgta tctttcctgg aaaatcctgt ctctgttttt    180
ggcttttttct gaaatagctg agaggatcta tgattcacac ccttaatatc ttcaaagagt    240
cttgtgtgtg acctgatact cagacctttt gatgtttctg aagtattagc aaaaggttat    300
acagccatat cttcatcact ttctctagag taaaggctgt cctgacggtg aatcttagtt    360
ttagtggctt ttgccatttg aataggccgc gaatttccca aatcatcaag tcctggtttc    420
tttatattta acaggtcttc cctcaatcta cctctttcca cattttacta taatcagcaa    480
gaagacagca ggctgtacct tccacagctt gcttggaaat atcctcagct aaatattgaa    540
gtcatcactt aaaagttctg ctttacacat aacggcagga cacaactcag cttagctttt    600
cgccactatg taacaaggac tcctttcctc cacttctcca gtaacatatt cctcattttt    660
taccaacagt ctattcatga tgatttagat attctatggc aatcgaggta ttctctatta    720
tgctcctttc ttcaaggccg ccctagcatt aacattccat atttctacta acagtctgtt    780
taaggcagtt tagcttcttt tctggcatgc tcctcagaat tcttccagcc tccacctact    840
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agtgttttgc ttcattgaga gtcattttca tgaattattt ttactactgc agtcatctta   1560
aatttataat catctcaaaa aagatgtcac aatgaacaga caaccatctg tgaggtcagt   1620
cattttgcat gatgtatgta atcaaaaagt ttgaaatgtc tgcttactaa taaagaatgt   1680
tttcactgaa acttaaaaaa aaaaaaaaa aaaaaaaaa                           1719
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<210>   274
<211>   1616
<212>   DNA
<213>   Homo sapiens
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<400>   274
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ggagtcggat gccagctgca ccccgcctgg ctcgcacagg ctaagaccac agacagagca    180
gggcttcccg gagccacaca ggccacgcac cccaggaacc cttgctgccg cgggccagga    240
acaggaatgt gttggtgcct gagacaccaa atggaagaag cacatcaaga ctgttctcct    300
```

202

```
gcggccaaca ctggcccgga agccgccctc catacaggcc ctcaggggc ctgccttctg    360
cgcctcagtc ccccgtgcat ccctgggcct gggtatcaca tgctctccag gaaagggacg    420
gaatcaatcg tgtgaccgat gggctcgcaa ggatgggtgc cgccgtggga gccctgcctc    480
tggtgctggc aagggattgg gtttgtgtgg gtgtctctag cctgcagagt gcagtgagtg    540
agagtccttg ggagcgcggc gctgcctgta gctgtgcctg gggatgcacg tggccacggg    600
atttcagtgg gacagcgctc ccacaggggc tgggggtggg ggtggggttt cttagttact    660
gttggaaagg gaaaaattca ccatatccaa ggggagagac gatgggctgg gtttgtttac    720
tccaacttcc cttctacacc cctcctgcag gacagtacga tttggggaga acccagctcc    780
ccactttatc tgcagactct gggacctgac aaaacagtca gagcctgagt gcactgcagc    840
ctgaactccc ttgagcagcg ctataaggga ctttgcactt taaaaagggg atgcctgtca    900
gtaaatcccc tgtgcattga ctagaactgg ggggctgcgc ccgctccctc cttaatccta    960
gatgatttgc tcatgaaata gaggtggggg acgaccgcat gcactctggg aggtgcagcc   1020
ctaaggggtg gactccagat ctccctgcaa gagacagctt ggcttggctt tggctgttgg   1080
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cacatggatc cccttaaaac atgtaaatgt gtcagaacac ggttgacctg ccgccttctt   1260
gaacctggtg gcccccgttg gaactatcag tggcgtctcc catgcacacg ccctctgctt   1320
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gtgctaaaat caaaggtgtt tgctgtgaag aaaaacatgt gtatatattg caccttgagt   1560
tgtcagaagg tagaaactga aataaactaa ctttaaaaaa aaaaaaaaa aaaaaa       1616
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<210>   275
<211>   6608
<212>   DNA
<213>   Homo sapiens

<400>   275
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cttgcccctg tccctgcggc ttggggaaag cgtaacccgg cggctaggcg cgggagaagt    180
gcggaggagc catgggcgcc gggagctcca ccgagcagcg cagcccggag cagccgcccg    240
aggggagctc cacgccggct gagcccgagc ccagcggcgg cggcccctcg gccgaggcgg    300
cgccagacac caccgcggac cccgccatcg ctgcctcgga ccccgccacc aagctcctac    360
agaagaatgg tcagctgtcc accatcaatg gcgtagctga gcaagatgag ctcagcctcc    420
aggagggtga cctaaatggc cagaaaggag ccctgaacgg tcaaggagcc ctaaacagcc    480
aggaggaaga agaagtcatt gtcacggagg ttggacagag agactctgaa gatgtgagcg    540
aaagagactc cgataaagag atggctacta agtcagcggt tgttcacgac atcacagatg    600
atgggcagga ggagaaccga aatatcgaac agattccttc ttcagaaagc aatttagaag    660
agctaacaca acccactgag tcccaggcta atgatattgg atttaagaag gtgtttaagt    720
ttgttggctt taaattcact gtgaaaaagg ataagacaga gaagcctgac actgtccagc    780
tactcactgt gaagaaagat gaaggggagg gagcagcagg ggctggcgac caccaggacc    840
ccagccttgg ggctggagaa gcagcatcca agaaagcga acccaaacaa tctacagaga    900
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203

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204

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205

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206

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207

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208

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209

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241

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242

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243

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